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DAILY DIGEST

Prepared in the Press Service, Office of Information, U. S. Department of Agriculture to present items of interest to agriculture and to agricultural workers. Views and opinions in these items are not necessarily approved by the Department.

Vol. LXX, No. 41

Section 1

August 29, 1938

F.S.C.C. BUYS SURPLUS WHEAT

The Government has undertaken to place 100,000,000 bushels of surplus American wheat in highly competitive world grain markets, even if it has to take a loss of as much as \$25,000,000 on the operation, says a report in the Washington Star. The Agriculture Department notified grain traders it would buy wheat Saturday, Sunday and today for shipment to foreign countries under a subsidy program, the details of which are to be announced later. Officials described the buying and export arrangement as an "emergency" measure designed to prevent loss of American wheat markets to other major producing countries, several of which have announced they would subsidize exports.

FARM EXPORT FREIGHT RATES

Administration leaders have agreed to seek lower freight rates on farm products moving to the sea for export, according to Chairman Jones of the House Agriculture Committee. He stated in an interview that Secretary Wallace had authority under the farm act to intervene in any freight rate case involving farm products, or to initiate proceedings designed to reduce rates. Representative Jones said that export advantages accorded to "iron, steel, cement and other industrial products should be available to the farmer on his exports." (Associated Press.)

COTTON, CORN LOAN RATES

The Agriculture Department broadened its efforts to halt farm price declines by announcing it would make loans on 1938 cotton at rates ranging from 5.30 to 10.75 cents a pound and increase the loan rate on 1937 corn from 50 to 57 cents a bushel, according to an Associated Press report. The loans were offered for a two-fold purpose: to finance farmers desiring to withhold crops from markets until supplies are smaller and prices may be higher and to place a floor under present prices. Corn prices rose about a cent and a half a bushel immediately after the loan was announced.

AIRPLANES FOR FOREST FIRES

A little-known activity of the Civilian Conservation Corps was announced yesterday by Acting Director James J. McEntee, who said enrollees have built more than 30 airplane landing fields in the country's deep forests during the last five years to facilitate transportation of forest^{fire} fighters and supplies, says a report in the Washington Post. The emergency landing fields have made it possible for fighters to rush by plane to fires in otherwise inaccessible sections, cutting down the destruction toll of the blazes and saving both time and effort.

Conserving
the Great
Plains

The leading article in Scientific Monthly (September) is "Climatic Cycles and Human Populations in the Great Plains" by Dr. Frederic E. Clements, Carnegie Institution of Washington, an ecological study of conservation. "The best cure for the ills of overgrazing," the author says, "is to be found in the natural recuperative powers of grasses and the chief task is to give them a fair opportunity." He makes frequent reference to departmental activities, particularly of the Soil Conservation Service. A summary paragraph says: "The most serious defect in the past has not been that of climate, natural vegetation or potential crop production. It has been the common failure to realize that the price of continued use is conservation and that conservation can be secured only by means of the most thorough cooperation. First of all this must embrace all the official agencies, federal, state and county, in any way concerned with the problem; this unification has already been accomplished to a considerable degree. It has shown farmers the necessity of cooperation among themselves, and it is upon this new development that the conservation of tomorrow should build an enduring system of use without abuse..."

The issue also includes an article, "A Scientist in Moscow," by Dr. Dean Burk of the Bureau of Chemistry and Soils.

"Middle
Counties"

Survey Graphic (September) includes an article, "Internes in Government", by Webb Waldron; "The Population Curve Hits the Schools", by Rufus D. Smith; and "Middle County", by Martha Collins Bayne, the leading paragraphs of which say: "'Middle counties', from Maine to California, had better watch out, or the goblins will get them. The goblins in this case are the neighboring cities--whose shadows are becoming longer and longer, until they are gradually obscuring the formerly crisp outlines of bustling towns, small self-sufficient villages and contented farms, leaving in their path a sort of no-man's land of communities adjusted to neither urban nor rural life. The results are twofold: a vague resentment on the part of the natives, created by ignorance or inability to meet new conditions of an industrial age with new social and civic tools; the city folk usually interested in their new habitat merely as a source of income, a place where living costs are comparatively low or simply as a delightful rural atmosphere. They rarely identify themselves with local affairs. Some semi-rural districts have already been swallowed whole. Some, like Westchester, just north of New York City, have become Suburbia overnight after a fairly successful digestive process. But others have not been so happily adjusted. Today scores are lying unnoticed, themselves unaware of the approaching wave of suburbanism. But if you know what has happened to Bucks County, Pa., Fairfield County, Conn., Norfolk County, Mass., or any other new suburban centers, you know that what happens in the next decade to hundreds of other semi-rural areas is as important to the whole country as to these counties themselves."

Hurricane Station at Swan Island The Weather Bureau has strengthened its hurricane warning service by adding to its chain of observation stations one at Swan Island--a tiny island in the Caribbean Sea between Cuba and the Yucatan Peninsula--in waters frequently crossed by tropical storms headed for the United States. The Navy Department, cooperating in the new project, supplies radio equipment and operators. The Weather Bureau supplies meteorological instruments and observers. Arrangements for obtaining weather observations at Swan Island were not completed until August 17. Meteorologist A. W. Ewing, transferred to the island from the weather station at Floyd Bennett Field, Long Island, N.Y., radioed the first observations August 19. Mr. Ewing will continue to send out three times a day observations that will be of special value to forecasters in charting the course of tropical storms. The station will be closed at the end of the present hurricane season--November 15. The Weather Bureau plans to reopen it on July 15, 1939.

FSA Loan to Maine Tenant Bangor (Maine) News (September 18) reports: "Leon C. Page, of Carmel, was presented with a \$5,634 Farm Security Administration check recently by Dean Arthur L. Deering, a member of the Maine State Tenant Purchase Advisory committee. The check was for the purchase of an 89-acre general farm and for stocking it properly. The payment to Page was the first farm tenant land purchase loan in New England, made under provisions of the Bankhead-Jones Farm Tenant Act. The act is administered by the Farm Security Administration, of the U. S. Department of Agriculture. The check included \$2,000 for the purchase of the farm of his choice and \$3,634 for buying operating goods to enable him to carry on extensive farming operations. The purchase loan will be amortized over a 40-year period, with interest at three percent. Amortization payments will vary from year to year, based on the farm income, and will average 4.3 percent yearly. The operating loan will run for five years, at 5 percent interest. It will be used for buying 10 cows, one bull, six calves, two horses and all necessary farm machinery.

Texas Cotton Area Changes C. A. Bonnen and A. C. Magee, of the Texas Experiment Station, write in the Journal of Farm Economics (August) on "Some Technological Changes in the High Plains Cotton Area of Texas." They report studies made by the station and the Bureau of Agricultural Economics, cooperating, and say in the concluding paragraph: "In little more than a decade cotton farmers in the High Plains of Texas have replaced one-row equipment with two-row and four-row equipment, and have practically replaced animal power with mechanical power. As a result, the amount of crop land that can be handled by a farm family has increased in this short space of time from approximately 100 to approximately 450 acres. While it is not possible at this time to definitely determine the full extent of the consequences arising out of these changes in the use of power and equipment, we cannot escape the implication that far-reaching social and economic changes necessarily must follow. It remains to be seen whether we shall be able to reshape

our economic and social institutions to permit society to take full advantage of increased efficiency on individual farms and at the same time cushion the impact of these changes on an important group in our population."

U.S.-British Trade Parley "If, as is reported, the United States and Great Britain are really progressing toward a reciprocal trade agreement, the result will be a triumph of will over material obstacles," says an editorial in the Wall Street Journal (August 26). "...Those at the heads of both governments have never lost sight of the fact that, considered broadly, closer commercial relations between Britain and America could only prove beneficial to both. Complicated as the problem has been from the British point of view by the existence of Empire interests, it has taken the labor of at least a year and probably more if unofficial and 'exploratory' conversations are included, to achieve the success which is at last reported to be at hand. But these very difficulties have increased the importance of the work; for, should there be a general attempt to release world trade by multilateral agreement, the working out of the relations among United States, Great Britain and the Dominions will have removed many of the most serious obstacles to such a pact. If the agreement does reach fruition it will demonstrate to that fragment of the world which is still interested in peace that adjustments of differing and even opposed interests can be achieved if the attempt is made in sincere friendliness and a will to see it through to success. This, perhaps more than the commercial stimulus to both countries which a reciprocal trade agreement would bring about, is what is so highly desirable today."

Rains "Excessive rainfall during summer months," says a report in the New York Times (August 24), "carried away a half million dollars worth of fertilizer from the tobacco and vegetable fields of Connecticut, according to an estimate made by Dr. M. F. Morgan of the Agricultural Experiment Station at New Haven. The more than seven inches of rain passing completely through the soil in a two-month period was equal to the amount normally percolating in six months. This estimate was made by Dr. Morgan as the result of lysimeter studies at the Tobacco Substation at Windsor. Analysis of the leachate drained from tobacco plots showed that all of the nitrogen supplied in the nitrate form with the fertilizer treatment has been lost. In addition, about half the nitrogen available from organic nitrogen sources was carried away from the plants. This amounts to a total of between 100 and 120 pounds per acre, a quantity sufficient to satisfy the requirements of a crop for normal growth...In terms of money this means a \$250,000 setback for tobacco farmers. Vegetables and other intensively fertilized crops grown on the lighter soil have suffered similar losses. On the other hand, the leaching of under grass cover crops has been negligible."

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Vol. LXX, No. 42

Section 1

August 30, 1938

WHEAT EXPORT SUBSIDY PLAN

The Department of Agriculture's wheat export subsidy program is to be carried out by purchasing wheat and reselling it to operators at a price enabling them to meet competition in the world market. Acting Secretary M. L. Wilson made the announcement yesterday. Losses sustained by the Federal Surplus Commodities Corporation (which is to direct the program) in reselling the wheat to exporters are to be made up from customs receipts set aside by the agricultural act for the removal and disposal of farm surpluses. Mr. Wilson said that in the actual sale of the wheat the corporation plans to pursue a merchandising policy similar to that which has been adopted by the Canadian Wheat Board. The facilities of the regular wheat and flour trade, including farmer cooperatives, will be utilized. (Associated Press.)

TVA PHOSPHATE INVESTIGATION

The question of why the Tennessee Valley Authority paid \$678,000 for mineral properties which were bought a few years earlier by the International Agricultural Corporation for \$148,000 may be made the subject of a special investigation by the Department of Justice, says a Knoxville report to the New York Times. A statement issued last night by Senator Donahey, chairman of the Joint Congressional Committee investigating the Authority, read: "The committee by unanimous action has decided to defer the present consideration of the phosphate purchases of the Tennessee Valley Authority and refer a certain special report of the General Accounting Office, now in the hands of the committee, to other departments of the government for consideration in conjunction with the investigating facilities of the committee."

GRAIN FREIGHT RATE MEETING

Abandonment of the proposal of eastern carriers to cut to the lowest point since 1915 freight rates on grain re-shipped from Chicago to the East, does not close the door to substantial rate reduction, it was said ^{yesterday} by shippers in Baltimore, according to a report in the Baltimore Sun. A meeting of representatives of the rail lines will be held at Chicago Thursday, when the primary subject to be discussed will be the equalization of freight rates from interior producing territory to Gulf and Atlantic ports. Not only is Canadian-grown grain moving to United Kingdom ports through Montreal and nearby Canadian points but shipments of American-grown grain this season have reached an all-time high. American-grown grain is pouring into Canadian ports via rail-water and all-water routes in tremendous volume.

Helminthology Under "Book Notices", the North American Veterinarian
Articles (September) says: "Papers on Helminthology, 'published in
 commemoration of the 30 year jubilee of the scientific,
educational and social activities of the honored worker of science, K. J.
Skrjabin,.....and the fifteenth anniversary of the All-Union
Institute of Helminthology,' contains more than 100 papers contributed by
internationally known authorities on parasitology...The International Con-
trol of Parasites is discussed by the late Maurice C. Hall (formerly of
USDA), who points out: 'One of the first moves that should be considered
in connection with parasite campaigns is the possibility of stopping the
movement of parasites and their spread throughout the world. Many of the
biological factors that limit the spread of free-living animals have little
or no value in limiting the spread of parasites. Climate is relatively
less important since the host animal supplies a suitable and stable cli-
mate, and although parasite eggs and larvae are subject to the climatic
conditions prevailing external to the host, the changing seasons in most
parts of the world insure favorable conditions for the stages outside the
host's body for most parasites during some part of the year. The topo-
graphic boundaries of mountains, streams and similar barriers still limit
the distribution of some wild animals, but the animals in which mankind
is most interested, its domesticated animals, not only are not restricted
in distribution by such barriers but are moved across continents and
oceans by modern transport, and that same transport moves their parasites
with great speed and with the utmost certainty..."

Soybean Flour Economic Entomology (August) contains "Soybean Flour
in Sprays as a Spray Material," by M. D. Farrar, Illinois Natural
 History Survey, and W. P. Flint, of the Survey and the
Illinois Experiment Station. They say in part: "A large number of
laboratory and field experiments have been made to determine the effect of
adding the flour to many types of spray mixtures. Its chemically inactive
property makes it compatible with practically all agricultural sprays.
The water-dispersable colloids are only mildly affected by water hardness.
Actually, however, under field conditions less flour is required with soft
than with hard water to give equivalent degrees of dispersion to a spray
mixture. The outstanding property of soybean flour in sprays is the re-
sulting deposition of a smooth, even spray deposit. When this property
is combined with that of sticking, for example, when used with soybean oil,
a residue can be deposited superior in amount and coverage to that obtained
with any other spreader tested...The chemically stable properties of soy-
bean flour permit its use with a wide range of insecticides or fungicides.
When used in a spray mixture it exhibits a pronounced spreading action
with a moderate degree of adhesion....Following the mention at fruit
growers' meetings of the results of our work with this material in 1935,
the commercial use of soybean flour in orchard insect control has been
surprisingly large. Experiment stations from both coasts report it useful
as a sticker or spreader. Growers throughout Illinois have found the
flour easy to handle and very adaptable in their spray programs. Figures
from a single manufacturer list 60 tons of soybean flour marketed for
spray purposes during 1937. Probably 100 tons were used in sprays last year."

Grain Freight Cut Vetoed

The board of directors of the Association of American Railroads has unexpectedly decided against proposals to reduce rates on grain for export. Eastern railroads, which had advanced the proposal that rates be reduced on shipments to the North Atlantic ports so the rail carriers might compete more effectively for the grain traffic now moving by the Great Lakes, concurred in the action of the AAR board. It was decided that reductions by the eastern roads would disrupt the rate structure unless corresponding reductions were made on traffic moving to Gulf and South Atlantic ports, and that the proposal was undesirable in other respects. (Wall Street Journal.)

Sylvatic Plague Laboratory

The University of California proposes to establish in connection with the Medical School in San Francisco a sylvatic plague laboratory to control sylvatic plague, which is now wide-spread in the rodent population of the western states. The plague, according to observations and studies thus far made, appears, however, to lack the virulence of other contagions, such as bubonic plague, that have appeared in the West in the past. The work of the laboratory will be concentrated on the rodent fleas, the principal carriers. The plague has taken a considerable toll among the rodent populations of the state, the infected fleas being found on squirrels, chipmunks, chickarees and other forms. The Hooper Foundation has counted thirteen rodents and rodent varieties that suffer from spontaneous plague, the list including squirrels, marmots, chipmunks, prairie dogs, mice and rats. (Science, Aug. 26.)

Wallace on World Agriculture

Secretary Wallace of the Department of Agriculture proposes that farm officials of all nations meet to formulate a set of principles designed to assure farming classes a "fair" share of the world's income, says an Associated Press report from Quebec Province. Such principles, he said, should eliminate barriers to international trade and assure each agricultural exporting nation its proper share of the world markets. Mr. Wallace spoke before an international conference of agricultural economists at Macdonald College. "I am convinced," he said, "that all nations could agree on the desirability of systems of agriculture which will maintain soil fertility and which will tend to give the farm section of the population a fair share of the national income." Describing export subsidies as a "type of economic warfare," Mr. Wallace declared they would do more harm than good to the nation using them if used on a large scale and for a long period of time. "Nevertheless, in certain emergencies, there may be exceptional and compelling circumstances justifying the use of export subsidies for limited and temporary purposes," he said, adding: "It is a situation that now confronts us (the United States) in the case of wheat." The Secretary said his country had not abandoned its "international idealism." "Our trade agreement program is proof of that. We are genuinely interested in all moves which look in the direction of ameliorating world economic conditions, but we know that we cannot make any worth-while contribution, unless we straighten out our own internal economy so it will function more smoothly."

Coloring of All alfalfa and red clover seed imported into the Imported Seed United States under green coloring regulations is to be colored 5 percent green instead of 1 percent as formerly. The change, effective August 15, announced by the Division of Seed Investigations of the U. S. Department of Agriculture, was made so that the coloring will be more evident to the farmer purchasing imported seed. The Federal Seed Act requires the following colorings: alfalfa and red clover seed grown in Canada--1 percent iridescent violet; red clover seed grown in Italy--10 percent red; alfalfa seed grown in Africa--10 percent red; alfalfa seed grown in Turkestan--10 percent purple red; alfalfa seed grown in South America--10 percent orange red; alfalfa and red clover seed of unknown origin--10 percent red; alfalfa and red clover seed of known origin, not specifically provided for above, 5 percent green. (Grain & Feed Journals, Consolidated, August 24.)

N.Y.Milk The Federal-State milk marketing program for the Agreement New York metropolitan area has been approved by Secretary Wallace and Commissioner Holton V. Noyes of the New York State Department of Agriculture and Markets. The program is to become effective September 1. The program affects more than 60,000 dairymen in New York, Vermont, Massachusetts, Connecticut, Pennsylvania, New Jersey and Maryland and is binding on handlers, numbering about 700, in New York City and Suffolk, Nassau and Westchester Counties in New York State. The AAA said that more than a 70 percent majority of votes in the referendum were in favor of the program. Erskine M. Harmon, AAA marketing specialist, was named as market administrator. The program establishes minimum prices for fluid milk and for eight other classes of milk. F. R. Wilcox, director of the AAA Division of Marketing and Marketing Agreements, said that the program aimed to help farmers get a reasonable price with a stable market for milk, to protect dealers against unfair competition and to assure them the same cost for milk and to safeguard the interests of consumers by stabilizing marketing conditions and assuring them a sufficient quantity of milk at a reasonable cost. (New York Times.)

Cold Storage The American Produce Review (August 24) in an Lockers editorial on cold storage lockers, says in part: "Increasing interest in the development (of storage lockers) has centered wider attention on it among state and federal educational and experiment agencies and, of course, manufacturers of refrigeration machinery. Among others a bulletin on the proper preparation of many products for freezing has lately been issued by the New York Experiment Station at Geneva...The spread of the freezer locker service will be greatly stimulated in territories where rural electrification programs are being prosecuted under the sponsorship of federal authorities. The trend in this case would seem to be toward the establishment of cooperative cold storage facilities at central points, refrigeration being supplied by small to moderate capacity relatively low-priced plants operated by cheap electric power..."

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Section 1

August 31, 1938

HEAVY HYDROGEN MANUFACTURE The manufacture of heavy hydrogen for the first time on a "mass production" basis, with a yield of two grams of a 75 percent concentrate of the precious substance every twenty-four hours, was announced yesterday by Columbia University. This represents a tenfold increase over the current maximum production. The extraction of the heavy hydrogen on a hitherto unprecedented scale was made possible by new chemical apparatus designed under the direction of Professor Harold C. Urey, winner of the Nobel Prize in 1934 for his discovery of heavy hydrogen. "Many secrets of protein structure and function," the announcement from Columbia says, "are expected to be revealed by substituting small quantities of heavy hydrogen for ordinary hydrogen in compounds consumed by living organisms and tracing the heavy hydrogen, by means of analysis at various stages of metabolism, in its course through the body." (New York Times.)

COTTON PRICES With improvement in securities here and in foreign markets, prices on the New York Cotton Exchange turned upward nearly \$1 a bale yesterday to end with net gains of 14 to 17 points. Quotations improved in both Liverpool and Bombay, which led to increased foreign buying, while several houses with mill connections took contracts from the ring. With Monday's decline in price below the government lending figure, consumers furnished sufficient buying power to halt recessions. Middling quotations at 10 spot southern markets rose 16 points to 8.42 cents a pound. (New York Times.)

MD. TOBACCO SEASON RECORD Sales of Maryland tobacco through the Baltimore market set a new high record for the present season last week, says a report in the Washington Star. They reached a total of 2,781 hogsheads, an increase of more than 700 hogsheads over the previous week. At the same time, however, receipts of the Maryland product recorded a decrease, totaling 1,463 hogsheads. This was 282 hogsheads below the receipts during the previous week. Prices continue unchanged, but it is stated that, while all good, ripe tobaccos are bringing satisfactory prices, greenish top leaf, as well as common seconds, are selling at very low prices.

BUILDING CONTRACTS After reaching the highest volume for this year in June, building contracts receded in July to a level 7.1 percent below the June peak, according to the Alexander Hamilton Institute yesterday. This was greater than the usual seasonal decline, which averaged 3.7 percent in the last 13 years. (Press.)

Peach Canners' "The most ambitious effort yet made by producers of Price Control an individual commodity to outlaw price demoralization--the cling peach equalization agreement, instituted as part of its three-year stabilization drive by the California Canners Industry Board--has flopped," says Business Week (August 27). "It now becomes apparent that packers will have to limit output this year to some 5,000,000 cases (smallest since 1918), that they face a carryover from last season of 5,577,600 cases (largest in history), and that growers will get only about \$12 a ton as compared with \$40 last year... The board attracted nationwide attention when it was created in the summer of 1937 by 35 independent California packers to set up a price control on canned peaches. After crop and production costs had been determined from data furnished by members, prices for first-quality peaches in the 1937 pack and the 1936 carryover were pegged at \$1.55 a dozen and were to be in force until August 1, 1938... Following failure of growers and packers late in July to form an agreement governing the 1938 pack, the board abandoned all attempts to name prices and allowed members to meet the market which dropped to \$1.20 for choice grade, the lowest price since 1932. Grower disappointment over prices for raw fruit impelled an official demand recently by the California Farm Bureau Federation to the U. S. Department of Justice for 'an immediate investigation of the character of organization and operation of the Canners Industry Board.'...."

Kansas Cow "Scattered through ten counties of South Central and Country Southwestern Kansas are the units in an agricultural industry doing a gross business of \$10,000,000 a year which are finding nothing to complain about this fall," says John M. Collins in a Belvidere, Kansas, report to the New York Times. "The units are composed of cattlemen who are operating beef cow herds in the rolling grass country which runs diagonally from the blue stem area southwestward into the short grass areas and the former 'dust bowl.'... Physical conditions in the Kansas cow country are the best in years. Both the big blue stem, or 'long grass' on the eastern side, and the buffalo, gramma and little blue stem 'short grass' to the west, have made a remarkable return from drought conditions of previous years. The pastures have been protected by careful grazing, the grass allotted a single cow in the last couple of years having been as high as twenty acres... The cattle are fat and thrifty, the calf crop ran above 90 percent, the cattle market is good and the cow men are asking 8 cents a pound for their yearlings, which, at around 700 pounds to the head, will stand the corn belt feeder some \$56 a steer. Looking at the big corn crop promised in the corn belt and lack of animal units to consume it, the cow men out here expect to do a brisk business this fall..."

Forest Service A \$15,000 airplane of 450 horsepower is destined to
Airplane aid the U. S. Forest Service in the suppression of
 California forest fires, says a San Francisco report in
American Lumberman (August 27). Its arrival marked the introduction of
the first aircraft ever owned by the Forest Service. It has a cruising
speed of 175 miles an hour with full load of 1,250 pounds. Service coil-
ing is 22,000 feet, and flying range is over 700 miles. Wing flaps and
brakes are designed to permit a landing run of 400 feet on emergency
areas. This specially constructed plane is equipped with an adjustable
pitch propeller for low flying, and has special bomb sights to accurately
dump food and fire fighting equipment by parachute from an installed
cargo bin. In experimental fire control work, the sights will serve to
drop water and chemicals on targets to determine the effectiveness of
aerial fire suppression methods on small fires. A special feature will
be the installation of voice amplifying equipment capable of transmitting
verbal messages from the air to the ground, in directing lost persons
and searching crews, guiding fire line crews to spot fires located from
the airplanes, instructing fire fighters and giving messages in other
emergencies. The voice can be projected from the airplane to the ground
over an average distance of one and one-half miles. The plane also
carries two-way radio equipment for contact with Forest Service field
sets at fire camps and national forest headquarters.

Poultry For three years the Institute of American Poultry
Abstracts Industries employed an abstractor at the University of
 Illinois who collected from good sources abstracts related
to eggs and poultry. These abstracts, reproduced on 5x8 blue printed
cards, were available to all who wished to subscribe to the service. The
Institute has felt for some time that the abstracts should have a wider
circle of users, and with this purpose in mind, it has arranged to have
the abstracts reproduced in the magazine, discontinuing the cards as of
September, 1938. At the present time there are approximately 5,500
abstract cards (5x8 inches) produced during the three years prior to
beginning their publication in the magazine.

(U.S. Egg and Poultry Magazine, September.)

Graduate Over 100 courses are announced in the Department
School Graduate School program for the year 1938-1939. It is now
 available at the office of the Graduate School, 4090 South
Building, telephone branch 317. The facilities of this school are open
to all government employees qualified to take the work. It cooperates
with universities and educational institutions in certifying to them
credits earned by work done in the Graduate School. The registration last
year reached 4,000 in 70 different courses. There is an exhibit of the
work of the Graduate School in the Administration Building Patio.

Civil Service The Civil Service Commission announces the following
Examinations examinations: assembled, Land Appraiser, \$3800; Associate
Land Appraiser, \$3200; Assistant Land Appraiser, \$2600,
Bureau of Agricultural Engineering, Department of Agriculture; unassembled,
Senior Medical Technician, \$2000; Assistant Medical Technician, \$1620,
optional subjects: (1) Bacteriology; (2) Roentgenology; (3) Bacteriology
and roentgenology (combined); Medical Technician (stethography-electro-
cardiography), \$1800, Public Health Service, Treasury Department. Appli-
cations must be on file not later than: (a) September 26, if received from
states other than those named in (b), (b) September 29, if received from
Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon,
Utah, Washington, or Wyoming.

Herrick, Asst. Horace T. Herrick has been appointed an Assistant
Chief C. & S. Chief of the Bureau of Chemistry and Soils, Dr. Knight,
Chief of the Bureau, announces. Mr. Herrick will assume
responsibility, on behalf of the Department, for the general direction
of the chemical and chemical engineering investigations of the four
regional research laboratories. He has been with the Bureau of Chemistry
and Soils for 12 years.

Grain, Hay Large supplies of the major feed grains and of hay are
Situation in prospect for the 1938-39 feeding season, says the Bureau
of Agricultural Economics. Crop conditions as of August 1
indicated a 1938 production of corn, oats, barley and the grain sorghums
of approximately 98 million tons. This is 2 million tons below the 1937
production of these four major feed grains. But the large carryovers
from last year's crops are expected to add 13 million tons to the new
crops, bringing total prospective supplies to 111 million tons, 7 million
more than a year ago when carry-overs were extremely small.

Wisconsin Farmers will find many useful ideas, tested and proved,
Experiments in the annual report of the Agricultural Experiment Station
of the University of Wisconsin. One of the outstanding
discoveries of the past year is that only short, dark green Sudan grass
contains dangerous amounts of poison. The crop is safe to pasture as
soon as it is "belly high" in all parts of the field, say F.T. Boyd,
E. Truog, and O.S. Aamodt. Drought or frost will make Sudan grass dangerous
only if many of the plants are small, and become stunted at less than 12
to 18 inches high. Hog raisers will be interested in the warning that it
is very necessary to feed minerals when soy bean oil meal is the only pro-
tein supplement in a pig ration. Pigs will eat enough minerals when they
have free choice of steamed bone meal and ground limestone in separate
boxes, recent trials by G. Bohstedt, J.M. Fargo, and W.A. King have shown.
Another important finding is that boron or borax, used in small amounts
as fertilizer, may help grow better potatoes and canning beets. W.E.
Tottingham and A.F. Ross have learned that potatoes need boron in order
to grow well, and boron also has helped to prevent "black spot" disease
of beets in trials by J.C. Walker. (Wisconsin Agriculturist, August 27.)

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Vol. LXX, No. 44

Section 1

September 1, 1938

WHEAT SUBSIDY, BRITISH BUYING A brisk buying movement in the last 15 minutes of trading yesterday at Chicago following disclosure that the Government had paid as high as 80 1/2 cents a bushel for wheat in expanding its export subsidy program caused a strong rally in wheat futures that wiped out early losses and substituted net fractional gains, says an Associated Press report from Chicago. After trading ceased the clearing house disclosed that 3,685,000 bushels of wheat had been tendered to satisfy September contracts today and that 2,609,000 bushels were retendered. This amount of delivery on contracts is unusually large for the first day, traders said. Wheat closed unchanged to 3/8 cents higher, compared with day before yesterday's finish, September 63 cents, December 64 7/8 to 65 cents.

An Associated Press report from Washington says the Government lost about 5.4 cents a bushel on the first wheat sold for export under Secretary's Wallace's subsidy program. It sold 451,000 bushels of surplus grain day before yesterday to exporters who agreed to sell it to foreign users.

A London cable to the New York Times says that, according to the Daily Telegraph, leading British grain concerns are arranging a contract to take 400,000 tons of Rumanian wheat during the next 8 or 9 months at a cost of 2,000,000 pounds. The purchase is regarded as a further step in the accumulation of wheat reserves.

K.C. RATE CASE HEARING Secretary Wallace ordered yesterday a hearing in Washington September 12 to determine how commission fees impounded in the Kansas City stockyards rate case should be distributed. The fees were impounded by the Federal District Court at Kansas City pending litigation over a Wallace order reducing commission rates at the stockyards. They constituted the difference between the old rates and the reduced ones. In April, however, the Supreme Court held the rate reduction order invalid on the ground that the procedure followed by the Agriculture Department in establishing new rates failed to give the commission men a "fair" hearing. (Associated Press.)

FREIGHT RATE RISE DEFERRED The Interstate Commerce Commission suspended yesterday to April 1, 1939, pending an investigation, proposed rate increases on fertilizer materials in Central Freight Association territory, which lies between the Buffalo-Pittsburgh line and the Mississippi River and is north of the Ohio River. (Associated Press.)

U.S.-Holland Trade Corp. To promote closer commercial and financial relations between New York and Amsterdam, the Holland House Corp. of the Netherlands has been formed. The organization is on a non-profit basis and has the support of the Dutch government. New York offices have been taken in Rockefeller Center. Another office will be opened in Amsterdam. (Business Week, August 27.)

Speed in Production of Wheat An editorial in the Bloomington (Illinois) Pantagraph (August 22) says in part: "Speed in the wheat fields, speed in transportation, speed at the elevators, speed at the mills, are the order of the day...The first place that sees the speedy disposal of the crop is on the farms--great stretches of prairie land where millions of bushels are harvested in the time it used to take a small farmer to cut his quarter section. The combine harvester-thresher does the work of cutting and bagging wheat all in one operation. Employment of man power is only a fraction of that needed in the old hand harvesting system. To the elevators is the next move--and here speed counts again. Millions of bushels are rushed to such primary markets as Kansas City, Omaha and Chicago. Long lines of railroad cars filled with wheat are headed eastward only a few days after the grain was cut in the southwest. Most of it goes to the milling centers, other trainloads to the Gulf and Atlantic ports for export. The price of wheat in the foreign markets is one of the principal factors in the great movement. It won't be long now until the loaf of bread on your table may be made from some of the great wheat crop of this season."

Australian Trade Correspondence from Melbourne to the Wall Street Journal (August 30) says that in the fiscal year ended June 30, 1938, the proportion of goods imported by

Australia from non-empire sources increased, although the percentage of Australian exports sold to British countries, and notably to the United Kingdom, rose to a more marked degree. Credit balance within United Kingdom was 15,661,348 pounds, but unfavorable balances with two countries alone--United States (9,057,166) and Canada (6,353,508)--were an almost equivalent counterweight. The United States supplied 15.64 percent of imports last year but took only 6.94 percent of exports. The former were valued at 17,770,794 pounds sterling, and the latter at 8,713,628, creating an adverse balance of 9,057,166, the largest by far among the 140 countries with which Australia traded. While America was buying less wool from Australia, Australia was buying more automobiles, petrol, oil and machinery from America. The position contrasts strongly with that of the previous year, when for the first time in decades, Australia had a favorable balance of 2,033,132^{pounds} in its dealings with the United States. Australia just squared approximately the ledger on merchandise accounts last year--a small excess of exports being recorded.

Canadian Lake Export Grain A report from the Montreal Bureau of the Wall Street Journal says the near bumper grain harvest now reaching marketing stage on the prairies is estimated in Canadian lake shipping circles as almost certain to swell the year's movement via St. Lawrence ports by about 75,000,000 bushels. If realized, this would compare with exports via the same route from August 1 to close of navigation last year of approximately 33,000,000 bushels. Direct shipping revenues from total traffic would approximate \$4,500,000 or, minus all loading charges, about \$4,200,000 realized gross would therefore compare with the close to actual revenues from same source last year of \$1,830,000. National Harbor Board estimates for port of Montreal are very close to these figures. Some grain houses on the other hand expect the traffic movement to be even heavier. The governing qualification in all quarters concerns Federal Government policy.

Poultry by the Piece "With the development of quick freezing of drawn poultry and the packaging of parts of the bird, the number of store outlets for dressed poultry has been increased," says an editorial in Everybodys Poultry Magazine (August-September). "Groceries and delicatessens which have no facilities for drawing poultry can now handle it along with cold meats. Sealed in cellophane with the net weight plainly marked, the package is far more attractive than a poultry carcass from which the feet and head have not been removed. States like Connecticut, Massachusetts, New Jersey, New York and Pennsylvania are the principal outlets for packaged poultry, for most states have old regulations which prohibit the sale of drawn poultry by the piece. Their purpose is to prevent shortweights, but the wording of these regulations is such that neatly packaged, drawn poultry marked with the net weight cannot be sold."

U. S. Social Security "The ultimate aim of the social security laws is to bring all wage earners into the insurance system, protecting them against want in old age and assisting them to tide over periods of unemployment," says an editorial in the Washington Post (August 30). "Many millions of persons, including domestic servants, farm laborers and casual workers, are not covered by the social security act. A study dealing with the extension of old-age insurance to these particular classes of workers will soon be completed by the Social Security Board...The task of keeping track of a shifting working population is so difficult that Germany and Great Britain, pioneers in the field of social insurance, did not bring domestic servants and farm labor under their respective unemployment insurance systems until many years after the first social insurance laws were passed...It is true that in both countries domestic servants and farm labor were early included in the old-age pension systems, but on the other hand the administrative difficulties of comprehensive old-age insurance are greater in the United States than in European countries, with their more limited areas and more homogeneous and settled working classes...It would seem wise, under the circumstances, to defer action until the Board has had ample time to study carefully the problems connected with an expansion of the system..."

Farm Price Index Down Prices of farm products in local markets on August 15 were 3 points lower than a month earlier and again at the level prevailing in May and June, the Bureau of Agricultural Economics reports. At 92 percent of pre-war in mid-August, the 3-point decline in the index of farm products prices offset the 3-point gain registered on July 15. Prior to May of this year the index of prices received had declined each month since July 1937 when the index stood at 125 percent of the pre-war average. The index in mid-August last year was 123.

Science Courses Following the practice of the last 30 years, the National Bureau of Standards will again give a series of advanced science courses this year, the Bureau announces. Intended primarily for members of the Bureau staff of scientists and technicians, but open to properly qualified students who are not employed at the Bureau, the courses will cover theoretical mechanics, theory of functions (a mathematics course) and petrographic methods (methods for the study of crystalline structures). All three courses will begin during the last week in September. (Science Service.)

Non-Poisonous Game Shot A new type of shot, non-poisonous so that it does not poison the feeding grounds of game as does lead shot, has been patented by Michael G. Corson of New York City. Mr. Corson's shot consists essentially of 95 percent zinc and the balance aluminum. A melt made of these two metals in these proportions can be made into shot by the same cheap method used for making lead shot, by dropping 120 feet from a melt and hardening and assuming a spherical shape while dropping, according to Mr. Corson. Lead shot has been criticized repeatedly by conservation authorities and organizations interested in wildlife, such as the U. S. Biological Survey, because of the fact that lead shot that has missed its mark gets its victims anyway by poisoning their feeding grounds. Shot made of other material and by methods used for making other types of cells are too expensive for practical use. (Science Service.)

Community USDA Movies "That picture has taught me some good lessons. I'll get some pine tar and benzol and be ready for next summer," said a prominent farmer of Woods County, Okla., after seeing the Department picture, Control of Screw Worms in Livestock. He is only one of the 10,000 persons who have attended the programs of the Woods County visual education work carried out by County Agent George Felkel in cooperation with the county rural schools, the Northwestern State Teachers' College, and the Chamber of Commerce of Alva, Oklahoma. County Agent Felkel operates the motion-picture projector at the meetings. He selects educational pictures pertaining to agriculture to interest the farmers, their wives, and their children. Usually, two or three talking pictures are shown at each program. The college bought the motion-picture projector, a 16-millimeter outfit with both silent and sound equipment. The college also owns a film-strip projector which is used on various occasions. The Alva Chamber of Commerce furnished the trailer on which the generator is mounted. The Chamber of Commerce includes sufficient funds in the annual budget to take care of the expenses of putting on the movies, as there is no admission charge to these meetings. The county superintendent of schools has consistently cooperated in the work. (Extension Service Review, August.)

DAILY DIGEST

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Vol. LXX, No. 45

Section 1

September 2, 1938

ELECTRIC

POWER

DISTRIBUTION

President Roosevelt yesterday directed steps which are intended to bring the country's electric power distribution facilities to a state of greater efficiency as a vital part of the national defense program, says a New York Times report. He designated a committee, to be headed by Acting Secretary of War Johnson, to report within sixty days the draft of a plan to eliminate "bottlenecks" in power distribution which might make Eastern centers of the United States vulnerable under attack. Reports have shown that fifteen important coastal cities, including New York, Baltimore and Washington among others, did not have the minimum reserve transmission facilities to make their defense adequate from a military point of view.

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WHEAT

MARKETING

Although losing fractions, Chicago wheat prices continued yesterday to buck the recession under way in other world markets. Liverpool and Winnipeg quotations fell as much as 1 and 2 cents a bushel respectively to new low levels. The Chicago market followed this decline only partially. Some traders attributed this independent action to the effect of operation of the export subsidy program. The Associated Press also reported yesterday that wheat purchased under the Government's export subsidy program has totaled 2,257,472 bushels to date. Purchases Wednesday totaled 1,530,000 bushels. Sales to shippers agreeing to place the grain in foreign markets have totaled 1,532,666 bushels. The Government sold the grain to exporters at from 4 to 7 cents a bushel less than it paid.

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POTATO

REFERENDUM

More than 17,000 potato producers voting in a recent referendum on a proposed marketing agreement program for 15 late producing states returned a favorable vote averaging 65 percent, the Agricultural Adjustment Administration announced yesterday. The vote, based on incomplete returns, is 1.5 percent less than the two-thirds favorable percentage required in order to put the program in effect. Ballots from 492 out of 551 counties in the 15 states in which the referendum was held show a total of 11,372 producers in favor of the program and 6,116 voting against it. In nine out of the 15 states the percentage of favorable producer votes was more than two-thirds, while the program appears to have received less than a two-thirds vote in six states, AAA officials pointed out. (Press.)

Planning by Farmers M. L. Wilson, Under Secretary of Agriculture, writing on "Farmer Participation," in Soil Conservation (August, S.C.S.) says in the concluding paragraph: "Planning by farmers for public programs involves both an ideal and a reality. Progress thus far represents merely a beginning, but only a short period of time has elapsed since the need for it became apparent. The ideal will be approached as the enormous latent forces are marshaled and coordinated for its achievement. It is perfectly clear that American agriculture, which includes the United States Department of Agriculture and the land-grant colleges, is rapidly shifting its internal relationships, in response to world-wide and domestic forces, so as to meet the necessity of public action and at the same time create a form of economic democracy unknown anywhere else in the world. The essence of this shift is American, and it represents progress in our own way. Farmers not only continue to plan their own individual farm operations, but farmer leaders in every community are playing an ever-expanding role in planning public programs."

Marijuana Eradication Prairie Farmer (August 27) states that a federal law provides a fine of \$2,000 and five years' imprisonment for permitting marijuana to grow on one's land, and says: "Marijuana is not a strange, foreign plant. It is wild hemp--or tame hemp, for that matter. It grows tall. The stalk is straight and tough. Branches come out on exactly opposite sides of the stalk; alternating sides for the next pair of branches. The leaves are divided at the base. Each leaf consists of from five to eleven leaflets. The edges of the leaflets are notched, like the teeth of a saw. The color is a rich, deep green. Flowers form in clusters at the axils of the leaves. The flowers are greenish colored. Seed forms abundantly after flowering. Marijuana is an annual plant, growing from seed. It is relished by birds, and is spread to new locations through their droppings. Thousands of farmers have permitted this weed to grow year after year. This is largely because they have not realized the great part marijuana has in undermining the social and moral welfare of our people..."

Genetic Yearbooks "Genetic research and genetic 'extension' in the Department of Agriculture have a peculiar interest to members of this (American Genetic) association, not alone on account of a somewhat interwoven history but because of the insight which this gives regarding the application of science to agriculture," says R. C., in the Journal of Heredity (August) writing on "The Genetic Forty-Niners--A Review of the Genetic Yearbooks." "...The genetic yearbooks, and the other genetic publications of the Department which will surely follow them, represent the continuation of demands by the practitioner of the art of agriculture that he shall have the fruits of scientific research...The purpose of the Department of Agriculture is ultimately practical, when all is said and done, and it must show greater efficiency and higher yields on American farms. Pure utilitarianism in applied

(Genetic Yearbooks, cont.)

science is stupidly short-sighted and there is great need for a more general understanding of the methods and promises of genetics, in a world where specialized crops are necessary, both to avoid the host of diseases modern transportation has spread throughout the world, and to produce the standardized products demanded by modern industry and commerce. The farmer of the future must become genetic-minded to an increasing extent. Mere 'how to prune trees' farmer's bulletins are not enough: Only government is in position to do certain parts of the job of synthesis and interpretation which must be done. That job will not be finished for a long time yet, but the 1936-37 Yearbooks are a milestone in the long trek of genetic enlightenment...The lay of the Land of the Genes is succinctly set forth in introductory articles explaining what has been discovered about heredity by genetic research and by microscopical study of the mechanism of cell division and reproduction. This is followed by a detailed summary of existing knowledge regarding the genetics of organisms used on American farms. These summaries are each prepared by a worker or by a group specializing in the various fields covered...A detailed review of such a wealth of material is obviously out of the question. The reviewer knows of no other source of information regarding the background and practical applications of...genetics in any way comparable to these two volumes..."

This Journal also contains "A 'Lazy' Mutation in Rice," by Jenkin W. Jones and C. Roy Adair, of the Bureau of Plant Industry.

Plants for Honey Crop "Some years ago, before sweet clover and alfalfa left their original habitats in the western states and migrated eastward," says an editorial in Gleanings in Bee Culture (September), "it was common in the white clover and alsike regions where a fall flow occurs, to have almost a dearth of nectar between the clover and fall flows. This made it difficult to work bees and remove honey from hives. At present, in the so-called white clover region there is practically a continuous light flow between clover and buckwheat. There is usually enough white sweet clover and alfalfa to keep bees occupied during the late summer. Beekeepers, in regions where alfalfa is grown extensively, report sizeable yields from this source. Just recently while visiting commercial producers in central Michigan one beekeeper whose bees had practically nothing but alfalfa to work on reported daily gains of from four to eight pounds on his scale hive. In regions where buckwheat is grown there is the problem of getting white honey properly cured and removed in time to prevent its becoming mixed with dark honey. If this white honey is taken off too soon before it is ripened it is likely to ferment. Beekeepers in clover regions where no buckwheat or fall honey is harvested do not have this problem. This continuous honey flow, due to the presence of sweet clover and alfalfa, has changed the picture in the clover belt, which in turn has changed methods of apiary management."

New-Style Belated interest is now being shown by manufacturers
 Corncribs and agricultural engineers in the problem of corn storage
 in units within the reach of the average farmer. Three
 steel cribs are undergoing careful tests at the Iowa State College.
 Manufactured by 3 different companies, they are not yet ready for com-
 mercial distribution. The capacity is 500 bushels per unit. Construction
 materials consist entirely of steel and wire. Convenience in shelling is
 provided by a slide in bottoms of the cribs. A silo-manufacturer is
 offering a structure which has a capacity of 6,500 bushels of corn and
 3,600 bushels of grain. The side walls are of creosoted wood staves, the
 roof is of steel. (Successful Farming, September.)

Regional "A federal appropriation likely to have general
 Laboratories approval is that under which the Department of Agriculture
 is organizing four regional laboratories to study the uses
 of farm products in industries," says an editorial in the New York Herald
 Tribune (August 30). "Appointment last week of Horace T. Herrick to have
 charge of chemical activities in these laboratories presents that experi-
 enced gentleman with as large an opportunity as has fallen to any chemist
 for years
Of the four regional
 laboratories contemplated, the one for our own eastern section of the
 country has been assigned five classes of farm materials certainly not
 least either in importance or difficulty. Our milk products already have
 substantial industrial and chemical uses, notably in the casein of milk
 whey, now a prominent chemical plastic. Another of the listed products,
 tobacco, supplies notable quantities of insect killers. The three others
 of our five are Irish potatoes, apples and vegetables, none of which has
 industrial outlets of much significance. Of the products assigned to the
 southern regional laboratory, cotton already is used extensively in explo-
 sives, sweet potatoes for starch and peanuts for oil. Workers in our
 eastern laboratory will be able to break newer ground..."

Pulpwood Pulpwood from southern pines, for newsprint paper and
 from Pines possibly for rayon and other synthetic cellulose products,
 is at present one of the most hopefully regarded possibili-
 ties on Dixie's economic horizon. But a recent discussion held under the
 auspices of the Society of American Foresters, and participated in by
 timber owners and operators as well as professional foresters, brings
 strongly into focus some of the difficulties the industry has to face.
 Already existing forest products industries in the South watch the new
 development with some anxiety, for trees can be cut for pulping purposes
 long before they are of sawlog size, and even before they can be slashed
 for turpentine. However, it is rather generally agreed that if woodlands
 are properly handled, under adequately trained professional supervision,
 pulpwood cuttings can be legitimately made without endangering either the
 lumber or the naval stores industry. (Science News Letter, August 27.)

DAILY DIGEST

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Vol. LXX, No. 46

Section 1

September 6, 1938

HOUSING PROJECTS Approximately 24,000 new dwelling units were made available for occupancy in the Nation's large-scale housing projects in the past year, the National Association of Housing Officials reported in Chicago, says a special wire to the Washington Post. With the 13,500 living units previously reported, nearly 37,000 families now make their homes in Federal aided projects located in all parts of the country. The association's annual project map, just completed, shows occupancy of 146 projects as of May 1, 1938, compared with 58 for May 1, 1937. Tenants are now living in 51 housing projects financed by the housing division of the Public Works Administration and its successor, the United States Housing Authority; in 82 farm security administration projects, and in 13 large-scale rental projects financed through the Federal Housing Administration.

ADVISE PLAN FOR SOUTH A demand that they be called together again to work out a remedy for Southern ills is rising among members of the advisory committee which helped prepare a report of Southern conditions for President Roosevelt. "Our committee should be called together again," said one, according to an Atlanta Associated Press report, "to work out plans and recommendations for dealing with those conditions. These recommendations should be presented to the President and those which require national legislation should be presented by him to Congress."

ANNOUNCE BIOTIC ACID Two Oregon State College scientists have announced the discovery of a new chemical which is as vital to life and growth as the vitamins and hormones, the Associated Press reports from Milwaukee. In a report made in advance to the American Chemical Society's ninety-sixth annual meeting, Dr. Roger J. Williams and Robert E. Eakin declared the chemical, which they called "biotic acid," is so powerful that less than one part per million parts of animal or plant tissue is sufficient to sustain and promote life.

DR. STOCKDYK TO FCA Appointment of Dr. E. A. Stockdyk, of California, as deputy governor of the Farm Credit Administration was announced Friday by Gov. W. I. Myers. Dr. Stockdyk will assume his new position on leave from the Berkeley, Calif., Bank for Co-operatives, of which he is president. His work will be concerned primarily with the division of research and extension in the field of co-operative marketing and purchasing. (Washington Post.)

Forest Fire American Forests (September) in an editorial on
Fighters fighting forest fires, says in part: "Thousands of men are
 led into this annual warfare, risking their lives, giving
their all that the forests may be saved...That their sacrifices deserve
definite public recognition has frequently been suggested. Recently under
the leadership of The American Forestry Association a plan for the creation
of an appropriate bronze medal for heroism in fighting forest fires has
begun to take form. The Society of American Foresters, the Pack Forestry
Foundation, the Association of State Foresters, and the National Lumber
Manufacturers Association have been invited to form a Board or Committee
of Award to pass on evidence or proof of individuals who may be recommended
for the award. Any individual or citizen who has displayed unusual quali-
ties of courage, judgment, quick thinking and coolness under extreme
emergency conditions of forest fire fighting--who has saved human lives
as well as those of trees--would be eligible for consideration. Because
the brunt of fighting forest fires falls upon the men in responsible
agencies of federal and state governments, the employees of the Forest
Service, the state forest services and conservation departments, the CCC,
the National Park Service and the state park services, the Indian Service
and the several other agencies organized for forest fire control, they
naturally come first to mind. Men or women in other walks of life, how-
ever, may rise to acts of heroism under the stress of forest fire emer-
gencies."

Electric A report in the Wall Street Journal (August 31) which
Farm describes the New York electric "proving" farm (mentioned
 in the Daily Digest of August 22) says that the farm is
owned by a Cornell graduate, and has 100 acres in tillage, fifty in
pasture, eighteen in woodland and thirty-two in apple orchards, represent-
ing the "typical" American farm. Since last March more than a mile of
new wiring, a 15 kilovolt ampere distribution transformer, motors, electric
heaters, pumps, farm and home appliances and modern lighting have been in-
stalled. This list of new equipment is not a complete list of all useful
apparatus, nor is it recommended that an individual farmer adopt it in full
to meet his particular requirements. Equipment includes more than 5,500
feet of No. 12 or larger wire of low resistance; 80 new lamp outlets and
69 convenience outlets in house, main barn and other farm buildings. Nine
motors with a total output of approximately 14 horsepower operate silage
cutting, hay chopper, hammer mill, hay hoist, wood saw, water pumps, three
ventilating fans in the barn, one in milk house and one in poultry house,
milking machine, electric drill, standardizer-separator, paint spraying
machine, concrete mixer, cooling compressor, milk cooler, sterilizer using
3,000-watt heating unit, two 2,000-watt 80-gallon electric water heaters
in milk house and barn, and a battery charger. In the farm house are an
electric refrigerator, combination sink and dish washer, cabinets and
working surface for all-electric kitchen, electric roaster, 1,000-watt
electric iron, electric ironing machine, electric range with double oven,
mixer, toaster, fan, waffle iron, heating pad and coffee maker.

Plant Hormone Experiments The Gardeners' Chronicle (London, August 20) in an editorial on plant hormones, says in part: "Dr. F.W.Went (Californis Institute of Technology) who has already done much to show how hormones work, has recently made experiments on grafting peas which throw much new light on old subjects. His experiments show that root formation, the growth of bud and of leaf, are each controlled by two agents. One of them is the auxin which apparently is a general speeder up of growth, and the other is something distinct from, but associated with, the auxin, which has not general but special powers. In one case it is responsible for bud growth, in another for root growth, and so on. That this is so is to be inferred from the behaviour of pea seedlings which have been grown in the dark. Remove their cotyledons and the leaves stop growing, the roots grow slowly, but the stem goes on growing in length at about half its former rate. Evidently cotyledons have a special chemical power of increasing the growth of leaves. If instead of the cotyledons the roots of the dark-grown peas are cut off, the leaves go on growing as they did before, at all events for the time being; new roots go on forming, but the stem does not grow longer. The roots are evidently makers of auxin, and when they are removed the amount of auxin which is being produced by the tip of the stem is not enough to keep the stem growing."

Cream or Whole Milk? "Whether to sell cream or whole milk is best answered by another question: 'Will you get enough for the skim milk to make up for higher costs of production on other livestock when the skim milk is taken off the farm?'" says H.L. in Successful Farming (September). "The change from cream to whole-milk marketing may be desirable enough, but the whole farm-livestock program may be affected by higher production costs. University of Minnesota livestock specialists point out that for the dairy cow herself, 10 pounds of skim milk will replace 1 pound of linseed meal, cottonseed meal, or soybean meal. Raising calves without it is costly because purchase of powdered skim milk at 4 to 6 cents per pound means that you are paying 40 to 60 cents per 100 pounds of skim milk. Feeding whole milk to calves is costly too. Skim milk in the hog ration replaces protein-supplement feeds. Without the protein of skim milk, more corn will be needed for 100 pounds of gain. One hundred pounds of skim milk will take the place of 14 pounds of corn and 7 pounds of tankage in the hog ration. For poultry, skim milk is an excellent source of the protein needed to balance farm grains, and 100 pounds of it will equal 10 pounds of meat scrap..."

Wildlife Preservation In an effort to preserve rapidly disappearing desert animals and plants, such as the desert bighorn or mountain sheep and rare species of cactus and palm, the National Park Service has employed A. A. Nichol, formerly of the University of Arizona, to head a survey. It will be carried on by the Park Service, jointly with the Division of Grazing, with a view to setting aside areas in the recently established Arizona No. 3 grazing district in Yuma, Maricopa and Pima Counties for the benefit of native animals and birds. (Press.)

Wood for Pencils "Next to matches, pencils are probably the least considered wooden articles of daily use," says Wood (London, August). "Pocket pencils of all sorts have been put on the market, with metal or composition cases in which only the lead wears away, but the draughtsman will have none of them, preferring the kind in which wood forms the protecting cover, but even he probably does not give much thought to the wood. Yet the pencil is sufficiently important for the Department of Scientific and Industrial Research to publish a report on the result of a search, by the Forest Products Research Laboratory, to find a substitute for American cedar, which is the most usually favoured wood. It is feared the supply may run short. Experiments have been made with cedar grown in Kenya and Tanganyika, and it has been found that if the wood is steamed under pressure and treated with oil, it compares very favourably with the American variety."

First U.S. Community Forest "Just 228 years ago the people of the little village of Newington, New Hampshire, caught a vision of the advantages of having a commonly owned or community forest," says Nelson C. Brown, in American Forests (September) under the title, "The First Community Forest". "Here is located the 'first born child' among two thousand community forests in this country, patterned after the many successful and profitable community forests that have been operated for centuries in the Black Forest of Germany, the Vosges region of France, and in Switzerland. Down through the years this little forest of 112 acres, established in 1710 at no cost from common property and unallotted land, has supplied materials to help build the village church, parsonage, town hall, school and still later, in 1892, the library. It has supplied for many years about thirty cords of wood to keep the church, parsonage, school, town hall and library warm during the long, cold New England winters...The present value of the timber on the 112 acres is estimated at \$5,800, and already more than \$6,000 income has been received from the sale of forest products...A few years ago 200 cords of wood were sold at \$2.50 a cord on the stump, which was an improvement thinning and netted the town \$500 revenue as well as improving the general productive condition and growing capacity of the timber stands... In 1912 the town installed a water system from the profits of a timber sale and, in addition, \$700 was turned over to the general town treasury. Again, in 1919, two small areas were cut over which yielded several hundred dollars to help construct a new school house...Professors K.W. Woodward and L.C. Swain of the Department of Forestry at the nearby State University at Durham have actively cooperated in giving technical advice so that the forest will continue to be maintained at its highest possible productive capacity."

Poultry Diseases New England Poultryman (August) says that in July it introduced a poultry disease series with four articles, "including two unusual papers by Dr. Mohler (Chief of the Bureau of Animal Industry) and Dr. Jull (formerly of the Department)." The series is continued in the August, September and October issues.

DAILY DIGEST

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Vol. LXX, No. 47

Section 1

September 7, 1938

FORECASTS SYNTHETIC FOODS

In a two column report to the New York Times on the meeting of the American Chemical Society, William L. Laurence includes the award of the Priestley Medal to Dr. Marston Taylor Bogert, Columbia University, and says that in his acceptance address Professor Bogert traced recent advances in the field of chemistry. He predicted that the day was definitely in sight when, if necessary, our food would consist of a few capsules or pills of concentrated, scientifically correct synthetic nutrients, although at present it would be prohibitively expensive. "When that day arrives," Dr. Bogert added, "the manufacturing nations may not be so dependent upon the agricultural ones, or require so much land for the support of their people." Fats, he said, are now being manufactured synthetically by Dr. Friedrich Bergius in Germany from fatty acids obtained by the oxidation of the paraffins formed in the hydrogenation of coal, and he also has succeeded in producing from wood pulp a low-cost "sugar," suitable for stock feeding, as well as a crystalline glucose (sugar) for human consumption.

WANT MORE SKIMMED MILK

A proposal by the larger milk companies that the municipal restrictions on the shipment of skimmed milk into New York City for manufacturing purposes be liberalized to allow entries in greater bulk will be considered next Tuesday by the Board of Health, the New York Times reports. Manufacturers who make skimmed milk into process cheese, buttermilk, chocolate drinks and other products have been buying Grade I whole milk from farmers at low prices, separating the milk at plants in New York City, and having the cream left over for other uses. The Federal-State milk marketing order, recently approved, requires distributors to pay farmers \$2.45 for 100 pounds of Grade I whole milk shipped into this city, regardless of whether that milk is later skimmed or not.

GOLD FLOOD RISES

Uncle Sam's fabulous store of gold grew rapidly yesterday as Europe, in its war fright, continued to transfer funds to this country for safe-keeping. The Federal Reserve Bank of New York reported the arrival of \$25,590,000 of the metal from England and arrangements for shipment of \$10,450,000 more from the same source. The Federal Reserve figures showed more than \$100,000,000 had come from England since the war scare took hold late in July, not counting \$36,000,000 engaged for shipment, but not yet received. (Associated Press.)

Yearbook Uncle Sam, in the persons of Secretary Wallace and
As Soil his fellow-scientists of the Department of Agriculture,
Clinic look long and thoughtfully at the fields that raise
 America's food and clothing, in the new Yearbook of the
U. S. Department of Agriculture, published Monday. The whole book concentrates on one subject: the soil and problems arising out of its neglect and abuse. There is about its contents that which suggests a group of physicians in consultation. Erosion by wind and water, the invisible erosion that is fertility exhaustion, too large crops and too low prices, share-cropping, pauper tenancy, overload of debt--these and other ails that have received much attention in public discussion are looked upon as symptoms behind which they are trying to go, seeking fundamental causes that may be treated with basic remedies...Characteristic of Secretary Wallace's perennial insistence upon the value of scientific research is the No. 1 position given to research and education in the list of things that need to be done. More facts must be found, even where the known facts stare one in the face like a clay-hill gully or a dust storm. Out there in the dark, beyond the horizon of things we know, may lie keys to difficulties that now baffle us. But with facts discovered and told to the people through all educational means, the bridge to recovery may still be lacking. Just as it would be of no use to tell a tubercular patient to eat eggs and drink milk when he hasn't even the price of cornmeal, so it can be of little assistance to the farmer to tell him what's wrong and how it can be righted if he lacks the means to put good doctrine into practice. Here is where the economists have their innings. Needed treatments they outline range all the way from quick palliatives in the form of direct monetary aid, through assistance in the enhancement of soil fertility and the stabilization of slopes, to programs for the long pull such as gradual retirement of submarginal lands and restoration of ecological balance to regions that have been indulging in maladapted cultivation practices. (Science Service, September 1.)

Earth "The Earth Road," says an editorial in Engineering
Roads News-Record (Sept. 1), "is the victim of a false association of ideas. It is commonly thought of as being nothing more than the dirt road of the days preceding automotive traffic. Even men who should know better are apt to consider the earth road as secondary, cheap, inferior. It is partly to correct these misconceptions that a series of surveys of earth road building in the South, where natural and economic conditions have encouraged high development, is begun in this issue. But the importance of these records is greater; they exemplify practical accomplishment in utilizing research in soil mechanics. They help to strip the cloak of mystery from the new science and reveal it for what it really is, a practical aid to engineering design and construction. While the articles will show that much remains to be learned, they give abundant proof of the ability of modern engineering to mold intricate lessons of research to its purposes as a builder."

Quick
Frozen
Foods

"Frozen foods," says a report in Canning Age (September), "'stole the show' at the 11th Annual Convention of the National Food Distributors Association" at Cleveland.

"The 'frosted food clinic' with a program of speeches detailing the progress of frozen foods from producer to consumer proved the outstanding and best-attended session. Approximately 115 exhibitors displayed their wares for the approval of some 1500 or more delegates... Business sessions and discussion groups stressed merchandising problems which have arisen during the past year in the entire food distribution field, but major attention was directed toward the frosted food field and the 84 varieties of frozen foods now being produced and marketed..."

Dr. Parker
Resigns

The Northwestern Miller (August 31) reports: "Announcement was made on Aug. 30 of the resignation, effective Feb. 1, 1939, of Dr. John H. Parker, plant breeder on the agronomy staff of Kansas State College, Manhattan, and his appointment as director of the Kansas Wheat Improvement Association, formerly known as the Southwestern Wheat Improvement Association. Until the date named Dr. Parker will continue to serve part time on the college staff, giving such time as may be required to the wheat plot testing plan of the improvement association. Later, he will devote his entire time to wheat improvement activities. Dr. Parker will continue his headquarters at Manhattan and his work will be closely coordinated with wheat breeding and quality improvement activities of the college. The association has leased a house and plot of several acres adjoining the college campus which will be used for headquarters, the master wheat plot, and later on for exhibition purposes. The wheat improvement association is supported by subscriptions of millers, grain merchants, and others interested in betterment of wheat quality in Kansas..."

Optimal
Diets

Leading the "Food News of the Week" department in the New York Times, (September 2), an item says in part:

"The majority of city people whose diets are now below par could be better fed at no extra cost if they selected their food wisely, according to Dr. Hazel K. Stiebeling, senior food economist of the Bureau of Home Economics of the United States Department of Agriculture, in an article prepared for discussion at a session of the Seventh International Management Congress to be held in Washington from Sept. 19 to 23. Based on data from 21,000 non-relief white families, Dr. Stiebeling shows that while three-quarters of the families were spending \$100 or more a person per year for food, an amount on which excellent diets can be arranged, fewer than 30 percent were actually buying excellent diets. The 'protective foods,' vegetables, fruits and milk in various forms, are the chief lack in present-day diets, Dr. Stiebeling says..."

Air Express
Shipments

For the first seven months of the current calendar year air-express shipments on a nation-wide scale increased 2.62 percent over the corresponding period of 1937, according to the air express division of Railway Express Agency. Shipments for the seven-month period totaled 372,878. (Press.)

Bankers
Fight
Erosion

In a leading article in Banking (September), Eugene P. Gum, Secretary of the Oklahoma Bankers Association, tells of experience with "A School for Soil Protection". The agricultural committee of the association "realized that many farmers were eager to terrace their land and had the horse and tractor power on the farm to do so but were unable to proceed until some engineer ran the lines for the levels. The county agents are capable and authorized to run levels, but their duties have been increased until they have no time for this service. Our association, in cooperation with the Oklahoma A. & M. College at Stillwater, undertook to supply this need. Our committee employed an engineer to conduct a school in line running and terracing to educate five or six men in each county to furnish our farmers this service so that they could terrace their own land. A preliminary survey developed the fact that an average of 50 farmers in each county were ready and eager to terrace as soon as the proper levels could be established...The men to receive finished training were hand-picked by the county agents, much consideration being given to their previous training as Future Farmers of America, in 4-H Club work and at the A. & M. College...If they developed into satisfactory, finished products they were given authority to run lines at from 10 to 15 cents per acre, according to the difficulties encountered. The farmers appreciate the service and do not hesitate to pay the price...Although the school in Group Four has been completed only since May, hundreds of farmers have commenced to terrace..."

Sleeping
Sickness

An item by George Turrell in Country Life and The Sportsman (September) says in part: "Since last year about this time when we received their first reports on the subject, the Horse and Mule Association of America has made considerable progress in the study of the plague of sleeping sickness in horses that had been prevalent in the Middle West. This disease affected approximately 157,984 horses in 1937. In Minnesota where it was most pernicious, the disease appeared on 29,676 farms where 157,483 horses were owned. Only 41,159 of these horses had the disease, or at least only this number was reported to be noticeably sick with it. Of this number 9,200, or 22% of those sick, died. Wayne Dinsmore the secretary of the Association says that most of the horses were lost due to failure to treat promptly. He also says that when the disease appears in a community, 75% of the horses probably will completely escape the disease, even if nothing is done, and if proper preventive measures are used, 99% should escape infection."

Graduated
Land Tax

Topeka Capital (Aug. 26) reports in part: "A graduated land tax, equality of taxation for agriculture, a slash in government expenditures, and continued government support for agricultural experiment are the proposals which the Committee of Kansas Farm Organizations will press at the next session of the Legislature...The committee, which includes twelve of the leading farm organizations of the state, approved these proposals at a meeting in Topeka recently...To encourage home ownership and discourage accumulation of excessive land holdings and corporate farms, we favor a graduated land tax," said the statement issued by the committee."

DAILY DIGEST

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Section 1

September 8, 1938

SYNTHETIC VITAMIN E

Synthesis of vitamin E, the vitamin of fecundity, without which, it is generally believed, no animals could reproduce themselves, was announced yesterday at the meeting of the American Chemical Society, William L. Laurence reports to the New York Times. The vitamin was prepared artificially for the first time from a constituent of chlorophyll, the green coloring matter of plants known as phytol, and a second substance which does not exist in nature and had to be prepared synthetically in the laboratory. No less than three different chemical laboratories in three different countries, the United States, Switzerland and England, have succeeded in synthesizing the vitamin. Credit for priority goes to the Swiss workers, who beat the scientists of this country by announcing their synthesis three days ahead. The Americans, however, claim a purer product. The announcement of the American achievement was made by Professor Lee Irvin Smith of the University of Minnesota School of Chemistry, and his associates, Drs. H. E. Ungnade, W. W. Pritchard, J. W. Opie, S. Wawzonek, F. L. Austin and H. H. Hoehn. The Swiss scientists are Dr. P. Karrer, one of the world's leading authorities on the vitamins, and his associates, Drs. H. Fritzsche, B. H. Ringier and H. Salomon.

INTERNATIONAL GRASSHOPPER PROGRAM

Organization of an international campaign against grasshoppers could control nine-tenths of hopper damage in Saskatchewan, Professor Kenneth King, Federal entomologist, said in Regina yesterday, according to the Canadian press. Both Professor King and J. G. Taggart, Saskatchewan Minister of Agriculture, supported a proposal for joint action with Northwestern States. Mr. Taggart said that Ottawa assistance would be sought in conducting the grasshopper campaign.

BANK DEPOSITS INACTIVE

Idle money is still one of the Nation's greatest obstacles to swift recovery, study of the latest Federal Reserve Bulletin, released last night, revealed. Bank deposits now total the almost unprecedented sum of \$47,500,000,000, but turnover--the ratio of checks cashed to the average amount deposited--is the lowest in American financial history. The Reserve report stressed the stagnant pools of idle money in its review of the month's business and credit situation, but pointed to a few encouraging signs of credit expansion: a slight increase in commercial loans since July, after a steady drop since last October, and a gradual climb in real estate loans. (Washington Post.)

Insect Zoo

In Science (September 2), Brayton Eddy discusses Educational "Insect Zoo as a Wildlife Conservation Project," basing his comment on experience with such an experiment since 1934. "The need of something more than government bulletins, photographs, drawings and mounted specimens in getting scientific truths before the general public has long been felt," he says. "By displaying live examples of the only four types of poisonous snakes in North America, respect and appreciation of all other snakes has been encouraged. By displaying the one species of poisonous lizard in the United States, the same is done for lizards. Local insects lose their horror when the few pain-givers--those which sting and those which cause a rash when handled--are represented by live specimens. Exhibiting the black widow spider and the tarantula, and explaining that they alone--of all spiders in Rhode Island--are dangerously poisonous, the lives of many other harmless and beneficial spiders are being spared. Today the insect zoo and nature center has become first port of call for many farmers and gardeners who are suffering from insect and other pests. Specimens are brought in for identification and for comparison with other specimens in the exhibit cases. Questions on insect control are incessant. The statement is repeatedly heard made by the departing visitor, 'Well, I won't be killing them any more.'..."

Grasses
Stage
Comeback

John M. Collins, writing from Belvidere, Kansas, reports in Kansas City Star (August 28); "Nature has made an about face in the Kansas cow country, and an agricultural industry scattered through ten south central and southwestern counties, which does a gross business of 10 million dollars annually, finds nothing to complain about this fall. The beef cow herds in the rolling grass country, which runs diagonally from the blue stem area southwestward into the short grass and the former dust bowl, annually produce in the neighborhood of 200,000 head of calves...Physical conditions in the area, which maintains much of the aspects of the old West with its huge ranches, far flung pastures and booted men, are the best in years. Both the big blue stem, or 'long grass' on the eastern side and the buffalo, gramma and little blue stem 'short grass' to the west, have made a remarkable comeback from the drought conditions of previous years..."

Texas.

The September issue of The Cattleman is devoted almost entirely to work of the Texas A. and M. College. An introductory paragraph by the editor says: "In our limited manner this issue pays tribute to the far-flung activities of the Agricultural and Mechanical College of Texas in so far as they dove-tail with the welfare of the livestock industry of the State. The forepart of this issue is given over to articles prepared by officials of the College proper, its Agricultural Experiment Station and its Agricultural Extension Service, with appropriate illustrations. We hope hereby to bring about a better understanding and appreciation on the part of Texas livestock producers for the school and its work..."

Official
Food
Standards

In "The Talk of the Industry," Food Industries (Sept.) notes: "Standards of quality and of identity will be established by the Food and Drug Administration under its new law, as described elsewhere in this issue. When these standards are so fixed by the prescribed procedure, they will have the same force as if they had been written into the law by Congress itself. They will no longer be merely guides to administrative action. This is a very fortunate thing. It means that the food industries will be able, as standards are developed and announced, to determine just exactly what requirements they must meet with respect to any commodity which they propose to market under any given commodity or quality name. Because of this fact it is increasingly important that the standards be determined and phrased with great care. Exactness of phraseology takes on far more significance than formerly. Food and Drug Administration is organizing a new advisory committee which will serve it officially in the formulation of standards. It is hoped, and expected, that a distinguished board will be formed which is judicially minded, as well as technically well-informed. The industries await with great interest the naming and the announcement of the personnel. It is to be hoped that the very best men in the country will be chosen and that they will be willing to serve."

Rural
Credit
System

In the Journal of Land and Public Utility Economics (August) Gilbert W. Cooke writes on "The North Dakota Rural Credit System". An introductory paragraph says: "Confronted in the last two decades with agrarian discontent over alleged insufficient private credit institutions, three northwestern states--Minnesota, South Dakota, and North Dakota--established state-financed rural credit systems to furnish long-time loans on rural real estate. This article analyzes the behavior of one of these three experiments."

Vegetables
To Order

An article on "Custom-Built Vegetables" in Business Week (Sept. 3) says, in part: "Vegetables of the future are going to be streamlined and grown to almost exact dimensional specifications, according to speakers at this week's convention in Detroit of the Vegetable Growers Association of America, composed of some 2,000 state and local associations. The trend is rapidly being brought about by the spreading use of modern packaging methods, intended for two purposes: decreased damage in shipment and improved saleability. Already much has been done in developing standard containers for such items as tomatoes, apples, squash, celery, and cucumbers, and seed growers have been developing seeds which will result in vegetables that will better fit the containers and guarantee size uniformity, now achieved less efficiently by the grading process...As an example of the influence of modern living conditions, seeds for watermelons that will fit into the average refrigerator are under development. Vegetable growers appear to be virtually unanimous in agreeing that packaging increases the value of products far more than the cost of the containers...Further, the development apparently has fostered an increasing tendency to cater to home-state growers. Thus many states report marked decreases in importations during their own seasons. Indicative of this trend is the fact that 65%

(Vegetables to Order--continued)

of all l.c.l. shipments are now made by truck...Use of non-poisonous insecticides apparently is being rapidly pushed by the gradual but continuous lowering of governmental specifications for arsenical content of vegetables and fruit..Vegetable growers are not greatly excited about hydroponics--the soil-less growing of produce on chemical tank farms. Most commercial growers look upon this development as of value from a research standpoint, but not of major economic significance..."

Better Farm Machines Under the headline, "Farmers Applaud as Farm Machinery Goes Modern," Montgomery Advertiser (Aug. 29) says, in part: "A few years ago farm machinery was designed in a home made way to accomplish purposes for individual farm needs in various localities. It was manufactured in a blacksmith style with cast iron bearings, wooden parts, and common wrought iron frames... Tractors weighing from three to five tons or more did little more than eight or ten horses...We see today a different situation. A modern tractor of today weighing little more than 3,000 pounds having modern bearings, steel construction, scientifically developed motors, durable rubber tires, capable of replacing 10 or 12 mules, durable enough to work continuously for hours and hours without breakdown, light enough to go in reasonably soft places and fast enough for pulling farmers' cotton to the gin,hauling corn from the field, are now available, replacing the big tractor that was either stuck or broke down the greater portion of the time."

Elimination of Tuberculosis "Forty million dollars lost every year to the American cattle industry in the pre-war period has been turned into a saving through elimination of tuberculous animals, Dr. John R. Mohler, of the U. S. Department of Agriculture, told the Thirteenth International Veterinary Congress in Zurich. In 1917 the incidence of tuberculosis was 4.9 percent in American cattle herds; in 1937 the figure had been forced down to 0.4 percent. During the twenty-year period about 3,500,000 diseased cattle had been detected and removed from the herds...The great majority of competent veterinary surgeons accept the tuberculin test as valid and accurate, Dr. Mohler declared. Despite vehement opposition by a relatively small group, he stated, important court decisions have sustained the position of the profession and of the U. S. Department of Agriculture...The Department now has a list of accredited tuberculin-tested herds, in which three successive tests have shown no diseased cattle present. There are now more than 275,000 such accredited herds in the country..." (Science News Letter, September 3.)

Wildlife Preservation In an effort to preserve rapidly disappearing desert animals and plants, such as the desert bighorn or mountain sheep and rare species of cactus and palm, the National Park Service has employed A. A. Nichol, formerly of the University of Arizona, to head a survey. It will be carried on by the Park Service jointly with the Division of Grazing, with a view to setting aside areas in the recently established Arizona No. 3 grazing district in Yuma, Maricopa and Pima Counties for the benefit of native animals and birds. (Press.)

DAILY DIGEST

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Section 1

September 9, 1938

CHLOROPHYLL

REACTION

REVERSED

A new method of working backward in an effort to discover how sunlight is captured and converted into food and fuel for man has been found, an Ohio chemist said, according to an Associated Press report from Milwaukee. Speaking before the closing session of the American Chemical Society meeting in Milwaukee, Dr. Paul Rothemund, of Antioch College, described the process of photosynthesis as one of the principal mysteries of the universe. A new approach to unlocking its secrets has been found, however, in the discovery that the process will work in reverse and that chlorophyll will give off light as well as absorb it. The two forms of chlorophyll, "when heated in certain organic solvents undergo a chemical change and this change is accompanied by the emission of a beautiful red glow of the entire solution," Dr. Rothemund declared.

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ESTIMATES

64 BILLION AS

1938 INCOME

Commerce Department officials estimated yesterday the national income for 1938 would run close to \$64,000,000,000. if current business improvement trends continued to the end of the year. This figure would be about 6 or 7 percent below last year's total of \$69,380,000,000, they said, but would be larger than that for any other year since 1930. Again, comparing with 1937, they said that since prices were lower this year than last, and the dollar was thus buying larger amounts of commodities, the decrease in actual production would be less than the 6 or 7 percent shown by the dollar figures. (Press.)

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WEATHER

RECORD

The summer of 1938 has set a record according to the Weather Bureau, the Washington Post reports. In no other summer has the temperature stayed above 60 degrees for 70 consecutive days, as it did this summer from June 30 to September 8.

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LOAN

TAKEN

QUICKLY

Secretary Morgenthau announced last night that the Treasury's first large offering of securities to finance the Government's new spending program had been oversubscribed quickly. Morgenthau said offers to buy \$400,000,000 worth of 2½ percent bonds and \$300,000,000 of 1-1/8 percent notes were enough to permit termination of the securities sale last night, less than 24 hours after it began. The ready purchase of the new securities by banks and other investors had been expected generally because the idle money of banks alone amounted to \$3,030,000,000 on September 7. (Associated Press.)

Wool and Substitutes An editorial in Sheep Breeder (September) says in part: "Every individual and industry is confronted with competition. It has often been referred to as the 'life of trade.' It certainly is a challenge to energy and ingenuity, and one who ignores it is courting disaster...Today the wool industry is faced with keen competition from wool substitutes. Scientists from many countries are laboring overtime to find better substitutes for wool. It won't do wool producers any good to fight these scientists nor will it do them any good to fight or knock these substitutes. What wool producers want to do is to consider how wool can be made to meet this competition. There are only two ways that this can be done. One of these is to improve wool so that it is more acceptable to the mills. This means improved breeding, improved handling of the product and better marketing. It also means that competition will force us not only to produce a better product but to sell it in competition with these other products."

Dahlia Sprays In the Bulletin of the American Dahlia Society (August), C. H. Batchelder and D. D. Questel of the Bureau of Entomology and Plant Quarantine are authors of an article, "Preparation of Sprays for Control of the European Corn Borer in Dahlias". They give detailed instruction for mixing the 3 sprays recommended by the Department: (1) Derris; (2) Phenothiazine; and (3) Nicotine Tannate. The issue also includes a brief report on the department's experimental work with various insecticides and spreaders at New Haven, Conn. The work is being done in cooperation with the National Youth Administration "which has provided a selected group of young men and women of post High School age to take care of the plots and to make the many records so necessary in the work."

Rural Medical Costs Medical services for the farm family represent about 6 percent of the cost of all goods and services required for farm family living, according to a joint report by the Bureau of Agricultural Economics, the Agricultural Adjustment Administration and the Bureau of Home Economics. Cost of medical services for farm families is equivalent to an annual expenditure of about \$265,000,000 for the United States, or an average of \$39 per farm family. Other medical costs such as medicine, drugs, health and accident insurance, bring the total bill for farm family medical care to about \$350,000,000 a year. That is an average per farm family per year of about \$51 or 8 percent of the average farm family budget. Farm families devote about 85 percent of their total expenditures for living expenses to the purchase of commodities. The other 15 percent goes for services, with medical services the most important single group. The report is the first of a series dealing with prices paid by farmers for services and commodities in the years since 1910. Medical service rates to farmers do not fluctuate greatly from year to year. They increased 21 percent, however, from the 1910-14 period to

(Rural Medical Costs--continued.)

1924-29. In the early thirties the economic recession brought some lowering of rates, but from 1932 to 1935-36, the average of rates for the country as a whole was unchanged at 16 percent above the 1910-14 level. The increase in medical service rates has been accompanied by an improvement in the quality and availability of medical services. Improved transportation facilities and an increase in the number of hospitals have made medical care more readily available to farm folks.

Sheep • In Sheep Breeder (Sept.) E. G. Cross of Irvine, Pa.,
Prefer contributes a letter reporting "another score in favor
Weeds of sheep". He says: "I have about three acres of hegari,
a sorghum somewhat like kafir corn, which I planted in
drills on a very weedy field of bottom land and the weather has been so
wet that proper cultivation was impossible. The weeds were so bad that
the grain could not be seen at all in a large part of the field, so I
gave it up and turned 50 sheep in to make what use of it they could.
To my surprise they did not seem to touch the grain itself, but com-
menced on the weeds, mostly ragweed and heart weed. Now the rows of
grain are plainly visible throughout the field, and are turning a darker,
healthier shade of green and growing rapidly so it looks like it would
make a good crop after all. I have been all through it looking for
damage but find very few plants from which the outer leaves have been
eaten. Will leave the sheep on it until the weeds get scarce when, of
course, they will begin on the grain itself..."

Chemical Science News Letter (September 3) contains an
Plant article, "Plants Can Hinder Or Help Each Other", which
Sociology reads in part: "Plants no less than human beings often
develop feuds or friendships from much the same sort of
subtle chemical causes. Dr. Gerhard Madaus, a German physician, has
made a special study of some phases of this 'chemical plant sociology,'
which started with his experimental plantings of drug plants but has
been extended to take in the likes and dislikes of several varieties of
crop plants as well. Dr. Madaus calls attention first to the often-
observed fact that the plant growth in certain types of evergreen forest
is sparse, and poor in number of species. Most plants cannot tolerate
the acid compounds from the trees' needles. He also cites experiments
by American as well as German plant physiologists, wherein the mere
presence of odorous plant substances, such as the scent of apples, oil
of bergamot, or turpentine, accelerate seedling growth in light but
hinder it in darkness. Of greater economic significance, possibly, are
his experiments with paired species grown together and separately. Thus,
he found that corn and wheat planted in the same pot produced a more
rapid growth of wheat. Bean seeds in water that had bathed the roots of
oats sprouted more quickly than did similar seeds in water from corn roots.
Grapevines with cypress spurge (a common vineyard weed) growing close to
their roots failed to set fruit. In some instances it is known that
root secretions are responsible for these mutual effects, and it seems
quite likely that similar substances act in like manner in other cases."

Magazine Assignment of the Magazine Mountain Land Use Project
Mountain in northwestern Arkansas to the United States Forest
Transfer Service for permanent administration has been effected
 by Presidential proclamation. The transfer is a con-
cluding step in the land utilization program of the former Resettlement
Administration in this area. The object of the program was to demon-
strate improved methods of land use by placing a large acreage in con-
structive use for forestry and recreation. The Forest Service will now
administer the Federally-owned land in an area of approximately 130,000
acres, of which about 3,000 acres are public domain and 80,250 have been
bought or are being bought by the Farm Security Administration and pre-
decessors. The remainder of the land is privately owned. Considerable
developmental work has been done with relief funds, principally to turn
to use the extraordinary natural advantages of the area for recreation
purposes. Two artificial lakes have been impounded and a road built
along the edge of Magazine Mountain. Many families living originally
in the project area have been enabled to move to better farms.

Tenant An editorial in Columbia (S.C.) State (Sept. 1) says:
Loans "In South Carolina more than 5,000 tenant farmers have
Popular applied to the Farm Security Administration for loans
 with which to buy farms. Probably the number would be
greater if application blanks had been available, and if the field forces
of the FSA had received instructions on procedure earlier than they did.
Probably the time for applications will be extended, and perhaps the
final number of applicants will be much larger. All applications cannot
be acted on favorably. There is not enough money available for that.
But the larger the number, the better the selection of approved clients
will be. Also, additional applications will demonstrate more forcefully
the fact that many tenants do wish to own their own farms."

Southern A Memphis Commercial-Appeal editorial (Sept. 2)
Planting says, in part: "E. H. White, Mississippi's director of
Problem farm extension work, was the principal speaker at the
 Plant to Prosper Demonstration held on the farm of C. W.
Armstrong near Belmont, Miss., recently. He told his audience that the
farmers of the South need to change their philosophy toward their busi-
ness...The Southern farmer should not plan to use money from his cash
crops to buy anything in the way of food, feed and farm supplies that
he can economically raise for himself. If he follows that plan, by the
way, he increases the value of his plant, namely, the soil, and thus in-
creases the worth of his capital stock...If the farmer relies entirely
on cotton or tobacco, he not only sells at wholesale rates and buys his
necessities at retail prices, but he also impairs the intrinsic value of
his plants...Subsistence farming of the type practiced by C.W.Armstrong,
last year's sweepstakes winner in the Plant to Prosper Competition, is
one solution to the Nation's No. 1 Economic Problem--the South."

DAILY DIGEST

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Section 1

September 12, 1938

ICC "The Interstate Commerce Commission, upon its own
CONSIDERS motion, directed an investigation into and concerning the
STOCKYARDS status of public stockyard companies as common carriers
in connection with the unloading and loading of livestock.

The commission will investigate the relation between any of the stockyard companies or their officials and railroad companies or other firms engaged in livestock transportation; the management or operation of stockyard companies by railroads of their affiliated companies; operating practices in connection with the transportation service performed by stockyard companies, and whether the stockyard companies are common carriers subject to the Commerce Act and whether they are violating any provisions of the Act." (Wall Street Journal, September 10.)

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ISOLATES Complete isolation of vitamin K--diet factor necessary
VITAMIN K for coagulation of blood--was announced yesterday by Dr.
Edward A. Doisy, St. Louis University research chemist,
the Associated Press reports. Dr. Doisy said the transparent and colorless crystals of pure vitamin were obtained from an alfalfa meal oil. He previously was known for his isolation of theelin, female sex hormone. Dean Alphonse M. Schwitalla of the medical school said the new discovery "will have an important application in many fields of surgery and other conditions involving hemorrhage."

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BOND Cash subscriptions aggregating about \$7,539,000,000
OFFERS were received for the offering of \$400,000,000 of 2½ per-
HEAVY cent twelve-to-fourteen-year bonds and \$300,000,000 of
1-1/8 percent four-and-three-quarter-year notes made on
Thursday, the Treasury Department made known yesterday, according to the New York Times. Subscriptions submitted for the bonds aggregated \$4,488,000,000, or more than eleven times the amount asked, and for the notes the aggregate of subscriptions was \$3,051,000,000, or about ten times the offering. Subscriptions came in so rapidly that the books on the cash offering were closed the same day and on the exchange offering twenty-four hours later. Notes maturing on December 15 which were not turned in for exchange will be paid off in cash when they fall due.

Marketing "It is a pleasant task," says an editorial in The
Coop. for Canner (September 3), "to report this week that the Canned
Canned Peas Pea Marketing Cooperative is off to an excellent start.
 Wisconsin's pea canning industry is in almost complete
agreement that the way for canners to whip their marketing problems is
by cooperative rather than competitive effort. From 75 to 80 percent of
Wisconsin's canned pea production is represented in the Cooperative's
membership now. That percentage will increase. Sizable portions of
the Minnesota, Michigan and New York pea packs are in the Cooperative,
but more members are needed. At meetings being held this week, the aims
of the new organization as regards grading, merchandising, eliminating
unfair trade practices and the gathering of statistics, will be explained
to canners in important packing districts. By the time the directors of
the Cooperative meet in Chicago September 16 and 17, it is probable that
this particular commodity branch of the industry will be more compactly
organized than it has ever been in the past."

Drainage "Tile drainage on the Ord farm near Vancouver," says
in Reverse an item in Country Life in British Columbia (September),
 "was converted to irrigation this year. Ordinarily water
has to be drained off the huge hop fields which lie below the level of
the dike canal. This year, the unparalleled dry spell in the Fraser
Valley caused the opposite condition. The fields needed water. The tile
drainage was installed years ago. Surface water which otherwise would
accumulate in pools and ponds is drained off into a discharge sump pit.
Everything has been out-go. This summer there was something less than
nothing to discharge, so water was allowed to back up in the main ditches
and lateral drainage canals. The water flowed back through the drainage
tile and was brought up to the plant roots by surface cultivation."

Illinois An item in Bloomington (Illinois) Pantagraph (Sept. 1)
Soils says in part: "Speaking on The Pantagraph's Farm day pro-
Going gram, G. M. Flint of Leroy, district superintendent in the
 soil conservation service, told of 1,000 surface soil depth
tests conducted in the Sangamon Valley district which revealed: Forty
percent of the total area has lost one fourth of its top soil. Another
20 percent of the land area, including a good portion of McLean county,
has lost from a fourth to a half of the original fertile surface soil.
Three percent, the steeper slopes, has lost all the surface soil, Mr.
Flint reported. Tests were conducted by comparing the depth of the sur-
face soil in timber land and other well protected surfaces with the depth
on cultivated slopes of the same character. All farmers are now more con-
scious of the local erosion problem than ever before, Mr. Flint said.
"Approximately 1,500 farmers in Central Illinois have developed a soil
conservation program for their farms, in co-operation with our service.
We are convinced that any land use program must be a complete co-ordinated
plan for the individual farm unit and be economically sound, as well as
employ soil treatment, improvement of vegetation, and mechanical practices
where necessary. Conservation is the utilization of resources without
waste--utilization of soils for the purpose to which they are best adapted."

Origin of Corn

"Corn has long been one of the greatest of botanical riddles," writes Dr. Frank Thone in a Science Service feature released this week. "Now come two Texas scientists, Dr. P. C. Mangelsdorf and Prof. R. G. Reeves, with strong evidence that the ancestor of corn is corn--a primitive type of grain known as pod corn, in which each grain is covered with a tiny individual husk of its own... One suggestion that has in the past had the support of some botanists, namely that teosinte is the ancestor of corn, they dispose of very neatly by adducing good genetical evidence that corn is one ancestor of teosinte, the other being the related grass *Tripsacum*. They hold that teosinte originated as a natural hybrid, probably when the migrating Mayas, about A.D. 600, carried corn into the natural range of *Tripsacum* in Mexico. One difficulty about the wild pod corn hypothesis is that the Peruvian Indians, who without much question originated corn culture, are the only ones who do not grow pod corn at all... So they leafed through old manuscripts, examined effigy pottery from the very earliest known Peruvian culture levels. Finally, at the Peabody Museum of Yale University, they found a faithful replica of a prehistoric ear of pod corn. They do not feel that the wild form of corn is necessarily extinct. It may still exist, they think, in the little-explored unforested lowlands of southwestern Brazil, Bolivia, or Paraguay."

Wearing Things Cut

"In one of the greatest long-range testing programs ever developed, scientists and technicians in the sprawling laboratories of the National Bureau of Standards in Washington have been putting all manner of goods and materials through use and abuse to see what they can take and which is best," says Leonard H. Engel in Science News Letter (September 10). "Paint to mark the center lines of highways has been worn to the point of disappearance by a rubber-shod wheel that has traveled many thousands of miles without ever getting anywhere. Iron-wheeled trucks have worn ruts into a dozen varieties of flooring material. Paints have been subjected to weathering tests that equal in one month a year's exposure to the elements. A whole host of things have been deliberately worn to the breaking point... Two types of test have been generally employed--the test that quickly 'ages' a given product to determine not only its life under normal conditions, but why it fails when it does; and simulated service tests which put goods through a machine routine that not only comes close to duplicating conditions encountered in real life, but does it with scientific accuracy and in a much shorter period of time... The really essential qualities of a product cannot be determined from mere inspection. The method used in testing must be developed with much care. Accelerated tests are necessary in many instances, which is one of the most difficult phases of commodity testing... The whole program of wearing things out on purpose is not by any means an isolated project in itself. It fits into the general purpose of the Bureau and was actually begun in order to prepare specifications for purchases by the Federal government, still one of its major jobs..."

Ginning An item in Birmingham Age-Herald (September 1) says:
Refunds "Ginning refunds totaling approximately \$400,000 are
 awaiting Alabama farmers, Harwell G. Davis, collector of
internal revenue, said recently. Davis said that of approximately 400
claims already received, 300 have no supporting evidence that the farmers
have paid their ginning tax and that such evidence must be given before
refunds can be made. The money was paid to the government under the
Bankhead Cotton Control Act, on 1934 and 1935 cotton. Congress recently
provided for it to be refunded, this action following repeal of the act.
Davis said farmers have until July, 1939, to file claims for their money.
He said evidence of the tax having been paid may be shown through ginning
receipts, canceled checks, affidavits by ginners and other ways. Just a
statement by the farmer himself is not sufficient evidence, Davis said."

Pollen Hayfever pollen grains fly high, Oren C. Durham,
Flies High botanist of the Abbott Laboratories at North Chicago, Ill.,
 discovered in the course of a week's research cruise back
and forth across the ragweed belt in transport planes of the United Air
Lines. But despite the presence of pollen in the air outside, passengers
within the big cabin planes were safe from sneezes. The pollen concentra-
tion inside was practically zero. Pollen ceilings had previously been re-
ported as varying from 3,000 to 4,000 feet. In this survey the ceiling
was found to vary from 4,800 to 9,000 feet above the ground. Heavy con-
centrations of pollen were found over northern Ohio and Indiana up to
about 6,000 feet. Small amounts of pollen were found in eastern Colorado
as high as 9,000 feet above the ground. Definite pollen ceilings were
found to be marked by cloud layers, whether these layers were continuous
or merely consisted of numerous cumulus clouds. In perfectly clear skies
there seems to be no well marked level at which pollen contamination
stops. Rain interfered considerably with the study, clearing the air of
pollen at certain low levels and hindering exposures part of the time.
(Science Service.)

British Wheat imports into the United Kingdom during 1938-39
Wheat will probably be increased to about 200 million bushels
Imports but flour imports, in terms of wheat, are expected to re-
 main at about 22 million bushels, the London office of the
Bureau of Agricultural Economics reports. Imports during 1937-38 totaled
181 million bushels of wheat and the equivalent of 21 million bushels in
the form of flour. Increased use of cheap wheat for livestock feed and
the British Government's announced intention of building up reserves for
food defense purposes were reported as the principal reasons for the ex-
pected increase in imports. Canada, no doubt, will supply the bulk of
the requirements, it was stated, "not only because British millers have
a preference for Canadian wheat but also because of the large surplus in
that country this year."

DAILY DIGEST

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Vol. LXX, No. 51

Section 1

September 13, 1938

BUTTER, CHEESE RECORD STORAGE

Stocks of storage butter in the country on September 1 reached a new high record of 201,543,000 pounds, exceeding the previous peak by more than 26,000,000, according to the government's monthly report of cold storage holdings made yesterday by the Bureau of Agricultural Economics. The former high of 175,476,000 pounds was on September 1, 1933. The report also showed that stocks of cheese on September 1 were at a new high record for the second consecutive month. The supply of cheese on September 1 amounted to 127,979,000 pounds, compared with the previous high record of 114,607,000 on August 1 and 105,026,000 on September 1, 1937. (New York Times.)

FOREIGN EXCHANGE

The foreign exchange market yesterday went through another nervous session, culminating in an accelerated fall of the pound sterling to a record low price for three and one-half years after the completion of Chancellor Hitler's Nuremberg speech, says a report in the New York Times. Fresh evidence of the apprehension in the international markets was provided by the fact that, although gold in London dropped well below the price at which shipments to this country are profitable, only a relatively small amount was bought.

N.Y. MILK PRICE FIXING

Balloting on the New York State order fixing prices to be paid to producers for milk sold in the New York metropolitan market was 86.8 percent in favor of the plan, Holton V. Noyes, Commissioner of Agriculture, announced yesterday. The fourteen cooperatives voting as units cast 19,499 votes (out of 29,883), 98.3 percent of which were in favor. The order is part of the State-Federal marketing agreement. (New York Times.)

MATANUSKA COLONY

The Department of the Interior yesterday took over control of the Matanuska Valley project in Alaska, a venture in colonization of farmers impoverished by drought and dust storms. Secretary Ickes announced an agreement with Harry L. Hopkins, Works Progress Administrator, for transfer of the Alaska Rural Rehabilitation Corporation and the Matanuska project from the Federal Emergency Relief Administration, which expired July 1. (Press.)

MD. RECORD ENROLLMENT

Enrollment at the University of Maryland for the fall term will be more than 4,200, largest in history, Willard M. Hillegeist, director of admissions, said yesterday at College Park, as the university prepared for a record registration day today. (Washington Post.)

"Whose Outdoors?" Jay N. Darling, former chief of the Bureau of Biological Survey, contributes a short article, "Whose Outdoors?" to National Parent-Teacher, (Aug-Sept.). He concludes: "Today's children must absorb the truth about this land of theirs and acquire a jealous love for it. The process of safeguarding outdoor resources must become automatic, so that frantic appeals and preachments will no longer be necessary. There must come a time when conflicts over the rights of the public to these natural resources will be impossible and when no argument can be raised in favor of spoilation and waste. It is well begun, this absorption of truth by youth, but it is only begun. We know what is needed for their teaching, and now we seek the means. To fail is unthinkable. We must be ashamed as it is of what we are handling on to them. To let their heritage be further diminished would be bad enough, and not to show them how it can be preserved would be a crime."

McCollum In American Journal of Public Health (September),
on Vitamin E. V. McCollum of Johns Hopkins University is author of a
Milks short review of "Present Status of Vitamin Milks". A
final paragraph says: "In conclusion, it may be reiterated,
that the vitaminization of milks with respect to D is of established value.
Milk distributors and health officials will do well to delay offering to
the public any other kinds of fortified milks until the medical profes-
sion asks for them."

Texas An item in Engineering News-Record (September 8) says:
Water "A bill to effect the conservation of underground water
Policy supplies has been prepared by a special committee of the
Texas legislature and will be submitted to the legislature
at its next session. The proposed bill would subject to regulation all
underground water except that used for household purposes, watering of
livestock, and watering of gardens for individual use. All water used
for industrial, irrigation or municipal supplies would be classified as
public, and users of public water would be required to obtain permits from
the State Board of Water Engineers. The board would have authority to
deny permits, and, according to the committee drawing up the bill, it is
contemplated that permits would be refused when necessary to prevent
lowering of the water table. The committee states that the underground
water supply has been depleted in several sections of Texas, particularly
in the winter garden area and the Gulf Coast section near Houston."

Hydroponics The department library has received Vol. I, No. 1, of
Magazine Hydroponics, "The Magazine of Gardening Without Soil". It
is published in Detroit. Harvey Whalen is editor.

Thatcher
Wheat
Approved

Northwestern Miller (September 7) summarizes from Winnipeg a report on the status of rust-resistant Thatcher wheat by Dr. W. F. Gaddes. One paragraph says: "Extensive laboratory tests conducted in Canada, the United States and oversea, under the auspices of the Associate Committee on Grain Research, National Research Council and Dominion Department of Agriculture, revealed that Thatcher closely resembled Marquis in its milling and baking properties but the flour and crumb of the loaf were somewhat more yellow. In view of the unanimity of opinion of cereal chemists in several countries as to the satisfactory quality of Thatcher, the Associate Committee on Grain Research in 1936 recommended that it be included by the Board of Grain Commissioners in the list of varieties eligible for the highest Manitoba grades."

Graves on
Southern
Problems

In New York Times Magazine (September 11), John Temple Graves, 2d, discusses: "This is the South of Today: 'Economic Problem No. 1'." He says in part: "How can the economic status be improved? The favorite answer of Southern industrialists is industry, the processing in the South of more of the raw materials produced there, the developing of factories and plants that will absorb the excess products and populations of the farm, keep profits at home, save consumers transportation costs. The favorite answer of Southern agriculturists, on the other hand, is agriculture (oddly enough!), the development of new uses and lower costs for cotton, the substitution of many crops for one, the development of credits and social aids to improve both men and land. But neither industrialists nor agriculturalists can say what they propose to do for the rest of the country from which they would thus take away factory or farm production. A certain amount of building up of the South at the expense of the North, East or West may be justifiable in view of its inferior economic position and greater need and promise, but from the national point of view it would seem that improvement must come essentially not through a mere redistribution among regions but from an increase in the sum total of each."

J.A.M.A.
Articles

The Journal of the American Medical Association (September 3), includes an article on Vitamin B₁, Methods of Assay and Food Sources, by Dr. Hazel E. Munsell of the Bureau of Home Economics. It also includes a final report by Drs. E.M.K. Geiling and Paul R. Cannon on the Elixir of Sulfanilamide-Massengill investigation which they undertook for the A.M.A. Chemical Laboratory. "We are permitted to state," they say, "that Dr. Herbert O. Calvery, chief pharmacologist of the Food and Drug Administration, Washington, D. C., and his staff are conducting experiments which are in general accord with our own observations." A concluding paragraph says: "The intelligent, energetic and cooperative manner in which the representatives of the American Medical Association, of the Food and Drug Administration of the U.S. Department of Agriculture and of cooperating educational institutions worked brought this episode to a speedy solution. Had it not been for their splendid service the toll of human life would probably have amounted to several hundreds."

Strip Cropping "Habit", says an editorial on Strip Cropping in Farm and Dairy (September 2) "is the worst drawback to this new method of farming. For many of us it's hard to imagine some of those hill fences gone and the crops running around the hill, in strips. Yet it is a sound practice; it keeps on the hillside the plant-food and moisture that on too many farms goes down to benefit the valley farmer. If you farm some fairly steep land, be open-minded enough to go and talk to someone who has been 'farming around the hill.' It is to your own interest to investigate."

Mormon Bismarck Tribune (September 2) reports, in part:
Crickets "That Mormon crickets may become an important 'bug problem'
Spreading for farmers in North Dakota is indicated in a survey made recently by F. Gray Butcher, NDAC extension entomologist. This past season the crickets have been found in varying numbers in 48 of the 53 counties in the state. 'The most severe infestations have been observed in portions of Burleigh, Adams, Bowman, Hettinger, Emmons, McIntosh and Dickey counties,' Butcher said. 'Very little crop injury has been experienced in these regions, but a few fields of corn and small grain have been damaged. If favorable conditions for their development continue, it is very probable that the heavier infested areas may suffer considerable crop damage next year and that an organized control program will be necessary...!'"

Cotton The first sample of cotton to be classed in Arkansas
Classing under the new federal cotton classing program, says
In Arkansas Arkansas Gazette (September 4), was handled at the new classing office of the Bureau of Agricultural Economics in the Cotton Exchange building, Second and Scott streets, yesterday (September 3). The sample was received from P. H. Singletary, vocational instructor at Belleville, Yell county. Twenty cotton improvement associations in Yell county have been approved by the state committee and the Bureau of Agricultural Economics to receive this service, C. A. Vines, assistant extension agronomist, University of Arkansas College of Agriculture, said.

Crops Aid A report in the Wall Street Journal (September 12)
Railroads says that Florida railroads are preparing for an exceptionally heavy loading of fruits and vegetables, the backbone of their earnings, in the coming crop season. Private estimates of equipment which will be needed to handle traffic are based on the premise that total rail loadings in Florida in the 1938-1939 season will be equal to record of 105,576 cars moved in the 1930-1931 season. Barring unfavorable weather the citrus crop will be the largest on record by a substantial margin and, if unfavorable selling prices do not interfere with its marketing, will assure the loading citrus roads of a good winter business.

DAILY DIGEST

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Vol. LXX, No. 52

Section 1

September 14, 1938

BUTTER PRICE STABILIZATION

Butter rose $3/8$ cent a pound yesterday to the highest price in a month on the Chicago Mercantile Exchange. The government-financed Dairy Products Marketing Association bought 1,811,000 pounds in New York and Chicago in its market stabilization efforts. Butter for November delivery closed at $23\ 3/4$ cents a pound on the Mercantile Exchange. This was the highest price quoted since August 11. The continued buying operations of the federal agency and reports indicating a better consumer demand for butter were factors contributing to the rise in the futures market. With yesterday's purchases the holdings of the marketing association reached 92,000,000 pounds. (New York Times.)

C. & O. CANAL NATIONAL PARK

Sale of the Chesapeake & Ohio Canal property within the District of Columbia was decreed yesterday in District Court when Justice Cox agreed to a price of \$2,000,000. The price includes a bid of \$100,000 by the Baltimore & Ohio Railroad for certain properties in upper Georgetown. The Interior Department plans an immediate survey of the canal property. Thereafter, an estimated \$500,000 will be used from PWA funds to make the property a national park. Maryland courts had previously approved sale of the canal property in that state. (Washington Post.)

FSCC COTTON PROGRAM

The Federal Surplus Commodities Corporation has been authorized to buy up to 50,000 bales of raw cotton and up to 14,000,000 yards of cotton fabric to be given to state welfare administrations for making mattresses and comforters for distribution to relief families. The program, which is limited to a cost of \$3,500,000, marks the resumption of cotton purchases for relief for the first time in more than a year. An official of the AAA, which made the announcement, said the purchases would be utilized under the direction of the Works Progress Administration. (Press.)

GOV. MYERS LEAVES FCA

William I. Myers, Governor of the Farm Credit Administration, is leaving to resume his job as a college professor "because there is no career in government service in the top positions," says an Associated Press report. His future, he said, lies with Cornell University. Mr. Myers was a professor of farm finance at Cornell and an associate of the late Professor George F. Warren, one of the President's early monetary advisors, when he was summoned to the capital in 1933 to aid in reorganizing farm credit facilities.

Forestry
Research

The September issue of the Journal of Forestry commemorates the tenth anniversary of the McSweeney-McNary forest research act of 1928. An editorial says in part: "During the ten years since the McSweeney-McNary Forest Research Act was enacted regional forest or forest and range experiment stations have been established in all the important forest regions of the continental United States; a research personnel sufficiently well trained and experienced to meet the immediate needs has been developed; a partial inventory of the forest resources of the Nation has been made; direction and guidance has been given to many forest and forest utilization practices; many social and economic aspects of forestry have been determined; and fallacious and fictitious forest practices and concepts have been discarded. In short, the scientific basis of American forestry has emerged largely during the past ten years. The articles in this issue of the Journal are a brief but impressive record of the accomplishments of the Branch of Research of the Forest Service, a record of which any public agency may well be proud."

Wildlife
in Alaska

Field & Stream (October) in an editorial on the wildlife situation in Alaska, says in part: "In spite of the fact that Alaska's game is the envy of many states, and the Mecca for non-resident sportsmen who leave thousands of dollars here each year for the privilege of photographing wildlife and taking game trophies, there are still spots here and there where the native animals or birds do not appear to utilize the natural food supply. Areas such as these are carefully studied with a view to transplantation of suitable species. Already a herd of buffalo from Montana, now in the Tanana Valley, has increased from 21 animals to 140; eight elk on Afognak Island have thrived and multiplied tenfold; a beautiful herd of mountain goats has developed from a few animals placed on Baranof Island; snowshoe rabbits transferred from near Anchorage to Kodiak and Afognak Islands now breed over continually expanding areas; musk-oxen from Greenland again live in Alaska after an absence of nearly a century. In addition to this, plantings of Sitka deer, beaver, marten, muskrats, pheasants, marmots and squirrels have been made to other areas where they had not previously existed and where it was believed they would prove beneficial in the future."

"Soybeaneries"

Illinois, having become outstanding as a soybean-producing state, is very logically the home of a new soybean-processing plant, opened recently. Around about October 1, it's going to have another. (Business Week, September 10.)

Right-of-Ways "A new right-of-way problem faces state highway depart-
on Highways ments as express highway planning looms up among future
 road activities," says Engineering News-Record (September 8)
editorially: "In past days, right-of-way acquisition consisted largely of
clipping corners and negotiating for narrow ribbons of land outside the
old fence lines. To provide 200 and 300 foot widths for express roads is
a different task, as has been found out in building Maryland's Governor
Nice Highway, Massachusetts' new turnpikes and Michigan's superhighways
in Wayne County. The express highway introduces a new order of right-of-
way transactions; an order in which land acquisition presents an almost
unexplored field of ownership interests, local development aspirations
and political ambitions. In many cases these constitute resistances that
transcend the power of the right-of-way organizations and control methods
of adequate main road improvement...."

Capital for American agriculture needs new capital, according to
Agriculture a survey just completed by the Mortgage Bankers' Associa-
 tion of America. A long neglected field for investors'
funds, that of farm mortgages, can employ profitably at least a quarter
of a billion dollars of new funds today, it was said recently by A. D.
Fraser, president of the association. Once of primary importance, he
asserted, farm financing has attracted relatively little new capital since
1928. Data supplied by the survey has led the mortgage bankers' body to
plan a more exhaustive exploration of the subject at its twenty-fifth
annual convention in October, Mr. Fraser said. This survey will take the
form of a special meeting of farm-mortgage lenders and investors. "At
our special farm meeting this year we are planning a farm-mortgage clinic
to determine when and how private funds can go back into the mortgage
field on a substantial scale," Mr. Fraser said. "We also plan to deter-
mine what rewards investors may expect from their participation in
financing the American farmer." (New York Times.)

U.S.-Dutch Business Week (September 10) commenting on Holland
Trade Corp. House Corp., "the new non-profit organization created a
 few weeks ago by some of the largest business interests
in this country and the Netherlands," says that "only three nations--
Canada, the United Kingdom, and Japan--did a greater two-way trade with
the United States last year than the Netherlands and its empire. Largely
responsible for this huge business are the exports of huge quantities of
oil and tropical products from the Far Eastern colonies to the United
States, and a growing export business from this country to the Netherlands.
The business community--watching the trade battle between the totalitarian
states with their closed economies, and the nations which are still fighting
for freer international trade as a means of relieving economic pressure--
is watching the Holland House move closely...Any move which tightens the
ties which hold together the democratic states and enlarges the possibili-
ties for greater trade among themselves gives them an enhanced bargaining
power when meeting the competition of the totalitarian nations."

Civil Service The Civil Service Commission announces the following
Examinations examinations: Senior Stenographer, \$1620; Junior Stenog-
 rapher, \$1440; Senior Typist, \$1440; Junior Typist, \$1260.
This examination is for appointment in Washington, D. C., only. Applica-
tions must be on file: (a) by October 3, if received from States other
than those named in (b); (b) by October 6, if received from Arizona,
California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah,
Washington, Wyoming. This examination is assembled.

Terminal The Bureau of Agricultural Economics says that one of
Markets the major reasons for the decline in rail tonnage of fresh
 fruits and vegetables in recent years is the failure of
the railroads to cooperate in working out efficient methods of handling
produce in the large city markets. Figures are cited showing that rail
shipments of fresh fruits and vegetables have declined from 1,000,000
carloads in 1931 to 800,000 in 1937. Total production of fresh fruits
and vegetables during this period increased about 15 percent. Reasons
for the loss of this business by the railroads to the motor trucks are
discussed by William C. Crow in the September Agricultural Situation. An
important one, often overlooked, he says, is that "wholesale markets to
which these products move are often located off the railroad." He cites
a recent study by the Bureau showing that in 35 out of 40 large cities
some hauling from railroads to the principal wholesale market is necessary.

Calif. County Citrus Leaves (September) in an item on the Los Angeles
Insectory County Insectory, operated under a committee of representa-
 tives of shippers for the propagation of insects predatory
on scale and mealybug, says in part: "Damage from mealybugs in the past
in some districts has been so severe that growers believe it is safer to
continue raising a minimum number of mealybug parasites than to be with-
out these valuable insects in case of another serious flareup of mealybugs.
Of greater present interest to citrus growers is the production of new
parasites of black scale. These beneficial insects, introduced by the
California Experiment Station, are being grown in considerable numbers
and liberated throughout the county. To date they have been able to main-
tain themselves in the field and are being found working wherever liberated.
Expert entomologists are encouraged by the success of these insects and
recommend that they be reared in numbers for another year or two...The
actual costs of producing these insects are borne on a per box basis by
cooperative shippers in the areas of the county interested. The annual
budget is set by the citrus sub-committee of county-wide pest control
committee."

Foreign Trade Foreign trade zones, only two of which are yet
Zone Ruling functioning in this country--at New York and Mobile--re-
 ceived a boost in a new Treasury ruling which decrees that
the day goods clear from the zone is the date of entry, when they are sub-
ject to duty charges. This makes it possible for owners of goods using
the foreign trade zones to time entry so as to get the benefit of the most
favorable prices. (Business Week, September 10.)

DAILY DIGEST

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Vol. LXX, No. 53

Section 1

September 15, 1938

WILLIS RAY GREGG,
W.B. CHIEF, DIES

Dr. Willis Ray Gregg, chief of the United States Weather Bureau since 1934, stricken a week ago while attending a meeting of the Civil Aeronautics Authority at Chicago, died of a heart attack last night, says an Associated Press report. Willis Ray Gregg was America's No. 1 "weather man" and in the development of aviation was credited with keeping the United States weather service on as high a level as any in the world. Born January 4, 1880, at Phoenix, New York, he entered the Weather Bureau in 1904, one year after his graduation from Cornell University. He remained with the bureau continually and became its head in January 1934. During a large part of his career he was head of the Aerological Division. He served as special meteorological advisor for two historically important transatlantic flights; one the flight of the United States Navy NC seaplanes in the spring of 1919, the other the flight of the British dirigible R34 that summer. He also aided materially since 1926 in the establishment of weather services for commercial airways. Under Mr. Gregg's administration weather service for plane pilots advanced rapidly. Mr. Gregg spent his first seven years in the service at Mount Weather, Virginia. He then came to Washington, and in 1917 became the head of the Aerological Division.

Mr. Gregg was a member of the National Advisory Committee for Aeronautics and chairman of its subcommittee on meteorological problems. He also belonged to and played a leading part in the International Meteorological Organization, the International Meteorological Committee, the Daniel Guggenheim Committee on Aeronautical Meteorology, the Interdepartmental Committee on the Coordination of Meteorological Service for Aeronautics. He was a fellow of the American Meteorological Society and its secretary since 1923. He belonged to the American Association for the Advancement of Science, the Royal Meteorological Society, the National Aeronautical Society, the American Geophysical Union, the Washington Academy of Sciences, the Washington Philosophical Society and the Cornell Alumni Association.

TRANSPORTATION

CONFERENCE

Facing a threatened general strike in consequence of their demands for a cut in wages, the nation's railroads began yesterday a concerted drive to restrict the rate-making powers of the Interstate Commerce Commission and called on competing agencies as well as the business and financial communities for support. The occasion of the railroads' appeal was a national transportation conference of 70 shippers, carriers, bankers and industrialists who met at the Chamber of Commerce of the United States. (New York Times.)

Trade Revival A pick up in business activity during the fall months
Forecast appears to be assured now, the Bureau of Agricultural
 Economics reports in its monthly bulletin on the agri-
cultural situation. Declaring that the index of industrial production
for July was "definitely" up and was accompanied by a slight improvement
in employment and factory payrolls, the bureau took the position that
orders for steel for the production of new automobile models, together
with the business "now in sight, seem to assure a substantial additional
rise through October at least." In summing up the business outlook picture,
the bureau said "nearly all doubts have been removed regarding the rise
in business activity this fall." The important questions to be answered
now, it continued, are: (1) Will the initial upswing in business continue,
or be followed by a serious reaction; (2) how long will it be before the
improvement is plainly reflected in the prices of farm products? "Once a
rise in business activity gets well under way, one favorable development
leads to another and the upswing tends to continue with only minor setbacks
until interrupted by some combination of unfavorable circumstances suffi-
ciently strong to upset the cumulative influence of the forces pushing
upwards," the report commented. (Wall Street Journal, September 13.)

Foreign Wheat With a world wheat crop of record proportions in
Policies sight, practically all the large foreign wheat-exporting
 countries have adopted, or are considering, measures to
facilitate exports and to maintain prices to growers at levels higher than
those in world markets, according to the Bureau of Agricultural Economics,
in the September Agricultural Situation. Canada is protecting its growers
against price declines by the maintenance of guaranteed minimum prices.
Recent reports indicate that Argentina is considering reestablishing the
guaranteed price system in effect during recent years under which the
Argentine Grain Board made purchases at fixed prices when the export
price fell below a minimum established by the Government. In Australia
direct production and marketing bounties and special relief payments to
wheat growers rather than export subsidies are the means to relieve low
prices. However, measures are now being considered to stabilize the
domestic wheat price at a desired level. In Russia all foreign trade is
a monopoly of the Government, which determines the quantities to be ex-
ported.

Glacier Park Visitors to Glacier National Park, Montana, next
Map Revision summer will have an accurate guide to all trails and points
 of interest as a result of United States Geological Survey
work. Hundreds of miles of trails, fire-protection improvements and the
entire east section of Glacier's scenic Going-to-the-Sun Highway are in-
cluded in the revision of the Glacier Park map, which will be available
next year. (Press.)

Bang's Testing Profitable "That Bang's disease yields to the systematic Bang's testing and sanitary program provided by the federal and state cooperative program is borne out by the record of the herd owned by David Burke, Wisconsin," says Hoard's Dairyman (September 10). "In reporting to the Wisconsin Department of Agriculture and Markets, Mr. Burke sums up his experience in these words: 'We have had cattle on this farm since 1850 and believe that we were free from Bang infection until 1932, when the disease was introduced into the herd. During 1932 we had 40 abortions. Breeding trouble was prevalent, and the herd was mired with garget. The condensery taking our milk was raising questions because we could not produce a good product...In 1937, with a Bang-free herd, we had only one abortion...We are bothered very little with garget and raise good, strong, thrifty cattle. Since we got a free herd the condensery hasn't turned a single can of milk back to us. The best part of the clean-up program is shown in the production...In 1933 our herd was riddled with Bang's disease. In 1937 it was free. Our total milk production for 1933 was 285,593 pounds, and for 1937 it was 402,583 pounds. My whole income is from dairying and I would go broke if I had to live with the disease.'..."

Crop Tests at County Fairs "Many farmers living in Nebraska seldom, if ever, have the opportunity to visit their state experiment stations and see various crops tested for comparison of yields and dependability," says an editorial in the Nebraska Farmer (September 10). "The Buffalo County Fair Association has attempted to solve that problem in its own territory by establishing an experimental farm on the county fair grounds...Buffalo county is in the heart of Nebraska's most intensively developed pump irrigation territory...Buffalo county fair officials decided to establish a permanent experimental plot under pump irrigation on their fair grounds. A pump manufacturer offered to donate a well, a pump, and an electric motor to operate it, and County Agent Wenzl agreed to supervise the planting and care of the crops to be grown. The experimental farm was publicized as a new feature of the county fair and farmers from many counties inspected the variety tests and the methods of irrigation during the fair week. Experimental plots included varieties of sorghums, corn, sugar beets, potatoes, and grass..."

Electricity in Michigan The Michigan Farmer (September 10) says in an editorial: "Announcement by the Michigan Public Utilities Commission that they have approved of a liberalized rural electrification policy proposed by the Consumers Power Company, whereby the company will build power lines in rural areas wherever \$12.50 a month for each mile of line is guaranteed, regardless of the number of customers, will undoubtedly speed up the day when farmers in all corners of the state who can economically afford to use electricity will have this efficient servant at their finger tips. The Consumers Power Company is to be commended for their progressiveness in helping to reduce darkness and hard work on the farm."

County The Wisconsin Agriculturist (September 10) in an editorial Agent obituary of a Wisconsin county agent (Sidney P. Murat) says:

"Death has claimed one of Wisconsin's best and most conscientious county agents and extension men...While in Buffalo County he promoted dairy herd improvement, soil management and club work, and continued to maintain his zeal for these corner-stones of farm welfare during his ten years at Fond du Lac. Mr. Murat had plenty of energy and was a tireless worker in late years for the national and state conservation programs, into which he put much vitality and enthusiasm. As editors we have received much kind help from Sidney Murat, and we deeply regret his loss to the dairy and 4-H service. He lived a useful life and contributed enduringly to the betterment of Wisconsin agriculture."

Highway The editor of the Prairie Farmer (September 10) says: "I Safety was interested in the statement made the other day by R.E.Toms, Chief of the Division of Design in the U.S.Bureau of Public Roads. 'Our present highways are safe for 98 percent of the nation's motorists,' he said, 'and it would be absurd to use the wealth of the nation in building so-called "fool-proof" highways in a futile attempt to bring safety to the 2 percent of the reckless, incautious, and other drivers causing accidents. A more logical approach to the problem would be to expend the proper amount of effort to keep the fools off the highways.' Some highway accidents are apparently unavoidable. But by far the largest percentage are caused by somebody's violation of well-known, easily understood rules of safety. The careful driver often is wrecked--sometimes killed--because some other driver is careless."

Delmarva Duck "Estimating that duck bootleggers received daily Bootlegging approximately 2,500 wild ducks, illegally trapped, on the Eastern Shore of Maryland and Virginia, Orin D. Steele, United States game management agent for Maryland, Delaware and Virginia, (Bureau of Biological Survey) recently described how the illegal sale of wild fowl from the Delmarva peninsula had developed into a big business," says Peter C. Chambliss in the Baltimore Sun. "Mr. Steele declared that the big operators in 'hot' wild fowl realized a gross profit of \$10,000 or more daily from the sale of illegally trapped wild ducks. The enormous profit of these men who cater to the luxury class and gourmets in large cities may be realized, he said, when it is understood that they pay the trappers but 25 cents apiece for the wild fowl which they sell to the wealthy consumers at from \$4.50 to \$8 per pair. The big money was made in the duck traffic up to last year, when Federal agents and State authorities joined forces in seeking to stamp out the practice of trapping wild ducks in the marsh country of the Delmarva peninsula and selling them to distributing agents. Last year, Mr. Steele related, State deputy game wardens, working under the direction of State Game Warden E. Lee LeCompte, and cooperating with him (Steele) as head of the Federal agents, destroyed a total of 657 duck traps. Some of these, he feels, were duplicates. The number of original sets or traps which they uncovered was 240...Some ideas of the scope of the territory which Mr. Steel and Federal agents were expected to cover may be gained when it is understood that along the ocean side of Chosapeake Bay, Sinepuxent, Assateague and Chincoteague bays there are more than 200 islands, each of which might and frequently did harbor illegal duck-trapping operations..."

DAILY DIGEST

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Section 1

September 16, 1938

FARM PRODUCTS DEMAND

The Bureau of Agricultural Economics predicted yesterday that there would be a "substantial improvement in industrial activity, consumer incomes and domestic demand for farm products this fall." "Developments during the past month have removed nearly all doubts" regarding these trends, the economists said. They called attention to a rise in the index of industrial production and "slight improvement in employment and factory payrolls." Unfavorable developments noted were "the weakness in commodity prices and uncertainties in the foreign situation." (Associated Press.)

AAA WHEAT EXPORT AID

Farm Administration officials said yesterday the Government was buying wheat directly from farmers in southern Idaho and northern Utah in a new move under the wheat export subsidy program. Previous purchases have been through grain handlers, such as elevator men and warehouse men, under Secretary Wallace's attempt to place 100,000,000 bushels of American wheat in world trade channels. The Agricultural Adjustment Administration said Idaho and Utah farmers eligible for Government loans on this year's crop would receive the loan rate on purchases. They said this averaged about 50 cents a bushel, well above current market prices in the area. (Associated Press.)

AUSTRALIAN GRAIN BOUNTY

A Canberra wireless to the New York Times says the Commonwealth Government has approved a scheme whereby states (in Australia) will legislate, fixing the prices of flour, and the Commonwealth will impose an excise tax equaling the difference between the fixed price and the export value of wheat. From the tax receipts a bounty will be distributed to wheat growers, insuring that they shall receive the home consumption price of 4 shillings eightpence a bushel. This will merely stabilize the present prices of flour and bread.

FOREIGN MONEY TO UNITED STATES

As a result of the tense situation in Europe, foreign money is coming into the United States in unprecedented volume, Henry Morgenthau, Jr., Secretary of the Treasury, said yesterday. He declared that there was no reason to be alarmed because of this and added that "if people want to send their money here as a haven of refuge we will take good care of it for them." (Press.)

British Storage Proposal The New Statesman and Nation (London, August 27) says that the outstanding economic proposal of the British Association this year came from Mr. Keynes, who "suggests that Empire producers of raw materials and foodstuffs should be offered free facilities for the physical storage of stocks in this country. The stocks would remain the property of the depositors, but the Government would lend at a nominal rate of interest cash up to, say, 90 percent of the value of the goods stored. The annual cost of thus storing five hundred million pounds' worth of commodities is estimated by Mr. Keynes at about 20,000,000 pounds. This is a considerable sum; but, in return, we should not merely have a useful war reserve, but by manipulating the volume of stocks held we might help to smooth out the present disturbing fluctuations in commodity prices. Mr. Keynes admits that the acquisition of stocks on this scale, even from 'sterling area' countries, might lead to losses of gold. But, he asks, would not commodities be as useful a reserve as sterilized gold? Moreover, in building up the initial stocks, we should in effect be making a capital investment in the Empire, from which our export industries would benefit."

Color Aerial Crop Maps Natural-color films now available make possible colored photographic aerial survey maps on which one will be able to tell beans from potatoes and one crop from another even though the photographs may have been made on a plane flying at an altitude as high as 20,000 feet, Dr. W. B. Rayton, of an optical company, told the American Society of Photogrammetry in New York, according to Science Service. This will add much to the value of such aerial photographic surveys, he indicated. Aerial mapping has become a widespread practice in recent years as results are accurate, and convenience and economy are much greater than with land surveying.

Canned Pea Marketing "Confronted with the task of marketing a record 1938 pack of more than 25,000,000 cases of canned peas, packers have inaugurated a cooperative agency to facilitate its movement into consumption," says an editorial in the New York Journal of Commerce (September 8). "The problem of selling this huge pack is further complicated because approximately 4,000,000 cases were carried over from last year...The canners' co-operative will concentrate its efforts in two directions. First, an educational advertising campaign will draw consumers' attention to the nutritional value of their product. Secondly, a rigorous grading program, with the active support of distributors, will be carried out, to facilitate the sale of the surplus with a minimum of price disturbance...The packers' marketing venture should indicate how far sales of food products of which large surpluses exist can be expanded through co-operative action by processors. Of great importance to the canning industry also is the fact that this year's overproduction has impressed upon canners the need for more careful pack planning and standardized grading. This experience should lead to greater interest in general trade problems by individual packers."

Milk Bottles

and Prices

The Prairie Farmer (September 10) in an item on paper milk bottles, says that "a study of consumer preference in Champaign-Urbana, Illinois shows that the new type containers are popular with the housewife. Only a few thought there was any difference in the flavor or keeping quality of the milk, or its tendency to freeze. All agreed that it was more convenient in the refrigerator. Dr. P. H. Tracy, chief in dairy manufactures at the University of Illinois, says: 'There are three main types of paper, or single-service, milk container; and all three of these have been studied in the University of Illinois experiments. Two of these are of the elongated square type and one is conical in shape. At least eight variations of these three main types are known at the present time, and others are being developed. Of the three different types studied at the University, one is formed and paraffined immediately before filling with a special machine. The second is pre-fabricated and paraffined and also requires a special machine for filling. The third, like the second, is pre-fabricated and paraffined but does not require a special machine for filling. That is, it can be filled with the equipment ordinarily used to fill glass bottles...It is the belief of the investigators that paper containers lend themselves best to distribution of milk through store sales. For retail delivery it is questionable whether paper containers will ever be practical, as the return of glass bottles on retail routes is high enough to make them more economical than paper containers. No attempts have been made by the university to study the relative costs of paper and other types of containers. Insofar as the individual containers are concerned the cost varies with the type and with the number which are used daily. The range is between 1 and 2 cents a quart.' Illinois College of Agriculture is thought to be the first to make an installation of a modern paper container machine for experimental study.."

Yorkwin

Wheat

H. H. Love, New York State College of Agriculture, writing in American Agriculturist (September 10) on Yorkwin wheat, says: "In the American Agriculturist of August 13, there appears a picture of a field of wheat grown by Minor C. Brokaw, Master Farmer, of Interlaken, New York. This field yielded at the rate of 64 bushels to the acre and the statement is made that 'this splendid yield was made possible by using the new Yorkwin wheat.' Other reports have been received, one field making 61 bushels to the acre, showing a very good wheat for New York State..."

An editorial note says: "What has been done with Yorkwin wheat, as is interestingly described in this article by Professor Love, is another illustration of a truth which American Agriculturist has pointed out many times. Farmers and everyone else owe a great debt to research scientists in both the marketing and production of farm crops. Without the help of these men, working quietly in laboratories, agriculture could not survive."

Barriers
in Grades
and Labels

Edgar L. Burtis, Bureau of Agricultural Economics, in the Agricultural Situation (September) says that "in the past few years there has been a tendency to use grading and labeling legislation to give producers within the State special advantages over producers outside the State, and to attempt to hinder the flow of agricultural products rather than to facilitate it...Probably the most fruitful cause of embarrassment to trade among the States which may arise from grading legislation is nonuniformity of grade specifications, in combination with the compulsory use of such grades. Where different States have different grade specifications this leads to difficulty. For example, trucks bringing fruits and vegetables from Washington and Oregon into California are stopped at border inspection stations. If the produce is not graded and labeled in accordance with California standards it must be unloaded, repacked, and relabeled. Particular difficulty is reported by Washington growers whose apples are trucked into California. The Washington apple grade specifications do not take condition into account whereas the California specifications do. California is not alone in stopping truck shipments at the border. Utah, Oregon, and Montana also do this. Montana, in addition, charges an inspection fee...While Federal standards are widely used throughout the United States, there is a vast amount of produce which is not graded in accordance with such standards. Here again the difficulty is one of non-uniformity..."

Fertilizers
Go West

Better Crops With Plant Food (August-September) says in an editorial that "research on soil and fertilization problems is an increasing activity of the State agricultural colleges and experiment stations of the West. Each has its own special problems to contend with in relation to its particular types of soil, climate, and crop production...The West is also a region of large crop and fertilizer distributing organizations that in many cases maintain trained agricultural staffs which are contributing their share to the work on plant food. Among such units are the fruit and vegetable canning and packing companies, growers cooperatives, the large sugar beet companies, fertilizer materials companies and the fertilizer trade which maintain an active and organized interest in the solution of soil fertility problems. Because of the mountainous nature of the country the distance between commercial crop producing areas is often great. Under such conditions to spread the load and reduce the time lag, understanding and cooperation between such agricultural organizations and the State agricultural authorities are highly desirable and increasingly the tendency. While the use of fertilizers in many parts of the West is quite new, because plant food is being removed by specialized crops in large quantities, it is inevitable that fertilizer consumption in the commercial crop producing areas will ultimately increase. Efficient fertilizer use and crop production in the future depend upon the soil fertility work being done today."

DAILY DIGEST

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Section 1

September 19, 1938

MANAGEMENT CONGRESS

Men who manage industry in all parts of the world are gathering in Washington today to discuss their relationship to the social and economic problems of the day. They are delegates to the seventh International Management Congress, which opens with an address of welcome by Secretary of State Hull. More than 2,000 delegates from this and 20 foreign countries are expected to be present. In preparation for the congress, which will continue through Friday, 200 papers and addresses have been prepared for discussion at the technical and general sessions. Lord Leverhulme, president of the International Committee of Scientific Management, called the present gathering "the most significant technically, socially and economically" of any of the six congresses held triennially since the first one at Prague in 1914. (New York Times.)

FEDERAL MEDICAL AID

By unanimous vote, the house of delegates of the American Medical Association Saturday went on record as opposing the government's proposal for a compulsory sickness insurance tax. The delegates, however, came out in favor of hospital service insurance. They also declared it was practicable to develop voluntary cash indemnity insurance plans to cover, in whole or in part, the costs of emergency or prolonged illness. The delegates also favored the establishment of a Federal Department of Health with a secretary who shall be a physician and a member of the Presidential Cabinet. (New York Times.)

FTC BAN ON ADVERTISING

The Federal Trade Commission has announced that on its application the United States District Court in Chicago has enjoined the Hartman chain of drug stores and Harry Gorov of Chicago from disseminating any advertising for the purpose of inducing the purchase of a weight-reducing remedy designated "281", which allegedly endangers the eyesight of the user. According to medical authorities, dinitrocresol, the effective ingredient of 281, may cause cataracts. The suit asking for a writ granting a preliminary injunction against the Hartman stores and Gorov is the first such action taken by the commission pursuant to authority granted under the Federal Trade Commission Act as amended by the Wheeler-Lea Act. (Press.)

TOBACCO TAX CHALLENGED

A group of North Carolina tobacco growers have challenged constitutionality of the Agricultural Adjustment Act and asked for an order restraining collection for penalty taxes on tobacco marketed in excess of individual quotas under the crop control law. (United Press.)

Merit System The Washington Post (September 16) commenting editorially on the departure of Governor Myers from the Farm Credit Administration, says in part: "The Government service--especially the newer departments and agencies created as the result of emergency conditions--have benefited greatly from the assistance given them in their formative stages by trained individuals drafted from outside Government ranks. In the great majority of cases, however, men of this type tend to return to private employment just at the time when they have gained enough administrative experience to make them exceptionally valuable to the Government. Governor Myers states quite frankly that he is leaving 'because there is no career in Government service in the top positions.' There is no valid reason why the present undesirable system should not be reformed. Except for a limited number of policy-making positions, every official in the Government service should be brought under the merit system and assured continued tenure of office so long as he is capable and honest. Such an extension of the merit system is one of the most important and desirable of the recommendations made by the President's committee on reorganization of the administrative establishments. Certainly the partisan affiliations of an expert heading such an organization as the Farm Credit Administration should not concern anybody provided he does his work in a competent and conscientious manner..."

Cheese Research "There has been considerable interest on the part of
in a Trailer American cheesemakers in the laboratory on wheels being operated at the Wayside Cheese Factory, near Green Bay, Wisconsin, by the Bureau of Dairy Industry, United States Department of Agriculture, and the Department of Dairy Industry, University of Wisconsin," says the National Butter and Cheese Journal (September 10). "The laboratory, housed in a modern trailer, differs from the traveling laboratory in the Green County Swiss cheese area in that its work is entirely of an investigational nature rather than instructive as in the Swiss laboratory. Says Dr. L. A. Rogers, Bureau of Dairy Industry: 'The work we are doing now is not in the nature of service to the cheesemaker but is for the purpose of collecting information which we hope can be used later in establishing and standardizing methods for making a more uniform and better grade of cheese. Work is entirely investigational and no attempt is made to give instruction or assistance to the cheesemaker, although, of course, information and advice may be given incidentally...The laboratory work is done by S. A. Hall, under supervision of H. L. Wilson, Bureau of Dairy Industry, and Dr. W. V. Price, University of Wisconsin. Cost of the investigation is carried by the Bureau of Dairy Industry. Equipped with running water, gas, electricity, and vacuum, the laboratory has incubators, sterilizers, constant temperature water baths, and all of the equipment necessary for making ordinary bacteriological and chemical determinations. 'In fact,' writes Dr. Price, 'the laboratory is equipped with all the apparatus necessary to measure the quality of milk, the changes which take place during curd making, and the composition and reaction of the finished cheese...This work is entirely of a scientific nature...Eventually it is hoped that the results obtained in the American cheese factory will be available for general use of the industry.'..."

Cotton Bale
Covers

"Extensive use of cotton bagging for baling cotton this year is a practical example in finding new and greater uses for cotton," says an editorial in the New Orleans Times Picayune (September 9). "Under a contract with the Department of Agriculture a mill of New Orleans will supply cotton patterns or covers for 1,100,000 bales this season at a price to the farmer considerably lower than the market price of jute patterns. Not all farmers, of course, will be able to use the cotton patterns this season under the advantages offered by the government. Certain rules as to the variety and quality of the cotton to be baled are involved. But the increase in its use will be vast. The total of 7,000,000 yards of cotton bagging produced in this country in the past 60 years now may be exceeded in one season by the one mill. The government contract fixes a price of 73 cents a pattern for the baling, of which the farmer pays 45 cents and the government 28 cents. The subsidy is an award to farmers who are successful in improving and standardizing their cotton along the lines advocated by the Department of Agriculture. The cotton patterns are said to have certain other distinct advantages, including better protection for the cotton and a standard weight which may induce the trade to adopt a lower tare allowance for cotton-covered bales. Those who have searched so long for ways to broaden the cotton demand at home are to be congratulated."

Door-to-Door
Co-op Survey

"Twenty-one years ago this fall the old Office of Markets and Rural Organization in the Department of Agriculture published the first official survey of farmers' cooperatives," says F. F. Hill, Deputy Governor, Farm Credit Administration, in News for Farmer Cooperatives (September). "The 1917 report showed 5,424 cooperative marketing and purchasing associations in the United States, with an estimated annual business of \$625,940,000. At that time about 1 in every 10 farmers was a member of a cooperative. As this article goes to press a new Nation-wide survey--the first actual door-to-door canvass of farmer co-op to be made in this country--is being completed by the Farm Credit Administration and the 13 banks for cooperatives and about 30 of the State agricultural colleges and universities. They report 15,573 farmers' co-ops and mutual companies. Gross business of the marketing and purchasing associations, including both wholesale and retail sales, aggregates \$2,750,000,000 annually. Nearly half of all American farmers are now marketing farm products or purchasing farm supplies, insurance, or farm business services through cooperative farmer-owned organizations...Farmer cooperatives are found in every State in the Union, the District of Columbia, and Puerto Rico. Heaviest concentration is in the North Central States, but associations in Eastern, Southern, and Pacific States have also forged ahead since the depression. Minnesota has the largest number of farmer cooperatives--over 1,300--but California, thanks to the cooperative marketing of citrus fruit, has the largest volume of business. There are 10,752 associations engaged in marketing farm products and purchasing farm supplies; 2,500 mutual irrigation companies, about 1,900 mutual fire insurance companies, and several hundred others in the miscellaneous group. The actual value of farm products sold and supplies purchased cooperatively by farmers increased \$750,000,000 since 1932 to approximately \$2,100,000,000 in 1936, the final year

(Door-to-Door Co-op Survey, continued)

covered by the survey. Over 7,400 cooperatives sell farm products as their main business and about 2,600 are primarily purchasing cooperatives. In 1936 farmers received \$1,762,000,000, or about one in every four of their cash-income dollars, from cooperative marketing organizations; and bought over \$337,000,000 worth of farm supplies cooperatively..."

FSA Tenant
Leases

The Farm Security Administration announces a new policy under which new tenant farmer borrowers under the rehabilitation program will be required to obtain leases meeting certain minimum standards. The leases must be written. They must cover the points usually dealt with in rental agreements in the locality. The arrangements must be equitable and must promise reasonably secure tenure for the tenant borrower. C. B. Baldwin, Acting Administrator, explained that under the Bankhead-Jones Act "the Farm Security Administration advances loans for the purchase of farms to tenants, share-croppers and farm laborers. However, this is a long-time program. For the immediate future our new policy on rehabilitation loans will help relieve bad features of tenancy for thousands of families. Each year a million farm families move, largely because of unsatisfactory tenure conditions. Improved leases would stop much of this costly moving."

How to Buy

Clarice L. Scott, Bureau of Home Economics, in *Agri-Women's Coats* cultural Leaders' Digest (September) contributes an item on the new 24-page picture book issued by the Department--
When a Woman Buys a Coat. "In making the study on which this picture book is based," she says, "the Bureau of Home Economics closely scrutinized coats in the shops, on the streets --in fact, every place where coats were sold or worn. Then, in the clothing laboratory, coats that had proved to be either good or bad were ripped open to find out exactly what it was that made them that way. Unlike dresses, many of the points so necessary to good quality in coats are hidden in places hard to get at, and unfamiliar as well. Yet it is very necessary in making a good choice to learn, if not to see, what the material is made of and how it will behave with wear, whether or not the seams have ample allowance and are taped to prevent stretching, what the interlining and lining are, and how warm the coat will be. All of this is told in a pictorial way..."

Poultry
Freezing

A new way to quick-freeze poultry, from the inside out, has been recently announced. This new process consists of first drawing the fowl. A paraffined tube is then thrust longitudinally through the bird and the edible giblets are replaced in the internal cavity, together with a small quantity of water. Both openings are then closed and a brine is passed through the tube. By this new process a four pound chicken can be frozen in 30 to 35 minutes at temperatures slightly below zero and turkeys in a proportional amount of time. (Turkey World, September.)

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Section 1

September 20, 1938

HULL URGES WORLD TRADE

Secretary of State Hull, at the second general session of the Seventh International Management Congress yesterday, outlined American policy as one aimed at steady reduction of world trade barriers in order to remove "pressure leading toward military action." This, he indicated, would make "unnecessary the enormous burdens placed on the world by armament and the monstrous threat to the world of military action." Secretary Hull's address started the five-day session, devoted to intensive technical conferences on phases of management, administration, production, distribution, personnel, agriculture, home management and general management. (Washington Post.)

WPA TO HALT APPLICATIONS

Deluged with 5,000 more applications than it has funds to supply, ^{the PWA} said yesterday that no further requests for loans and grants under the 1938 PWA program will be received after this month. A total of \$815,000,000 already has been allotted from the \$965,000,000 available for PWA's share of the recovery program, and the agency is in a position "any day now" to halt allotments, an official said. Despite the large volume of allocations, only a few millions have been actually disbursed by the Treasury and only 699 projects, or 12 per cent of the program, is now under construction. Congress specified that all applications be in by September 30 and the entire program be under construction by January 1. (Washington Post.)

CONSUMER MEAT DEMAND

The Bureau of Agricultural Economics said yesterday that the consumer demand for meats is expected to improve somewhat during the fall and winter months. For a longer period, it was stated that "if the present recovery in business activity continues, consumer income and the demand for meats in 1939 probably will be somewhat greater than in 1938." Discussing the livestock supply situation, the bureau said that "marketings of grain-fed cattle probably will continue much larger than a year earlier, a fairly large seasonal increase in hog marketings is expected during the next few months, but marketings of cows and heifers this fall are likely to be considerably smaller than a year earlier and probably will decrease seasonally by early winter."

COOPERATIVES IN ENGLAND

Reginald G. Gosling, director of the largest consumers cooperative society in the world, the London Cooperative Society, reported a "growing unemployment situation in England. In Washington as a delegate to the management congress, he said that depression appears inevitable for England, regardless of peace or war in central Europe. (Press.)

Northwest Forestry The Pacific Northwest Regional Planning Commission, in a report published by the National Resources Committee, urges immediate and general adoption of sustained-yield management to conserve the forests of the Pacific Northwest, pointing out that the timber supply is being dangerously depleted. The report lays stress on the importance of sustained-yield management as advocated by the U. S. Forest Service. It is pointed out that half the remaining timber supply and forty per cent of the water power resources of the United States are situated in this region and that the situation with respect to this forest resource is critical, that the threat of loss of a resource of incalculable value is a serious one, and that solution of the problem will become increasingly difficult unless substantial progress in conservation, including protection and improved management, is made. So far as merchantable major timber and the timber industry are concerned substantial depletion may come about in a relatively short time unless remedial steps are taken. (Science, September 16.)

Community Buildings Community buildings, planned to meet the needs of farm people, are becoming increasingly popular, according to a new Farmers' Bulletin 1804, Community Buildings for Farm Families. The bulletin, which discusses the planning, construction and management of many successful community buildings, is by the Bureau of Agricultural Economics and the Farm Security Administration. The author, Blanche Halbert, points out that community buildings are more and more designed for civic, business, social, recreational and sometimes educational activities. The increased interest in rural social and recreational centers is attributed to the new trends in country neighborhoods "which are demanding new locations and new uses for community buildings." Community activities to meet the needs of larger numbers of farm families are demanded as improved roads and other means of communication extend rural neighborhoods beyond village limits or parish lines.

Doctor Gregg "Those who knew Dr. Willis R. Gregg intimately are agreed that he was a man who could ill be spared," says an editorial in the Washington Star (September 16). "He had achieved the highest position in his chosen science, he had won the respect of the public at large, his fame among his professional contemporaries was established. Normally, he should have gone on in the work he loved for at least another decade with credit to himself and benefit to his country. Dr. Gregg earned his place as chief of the Weather Bureau in terms of devoted service. He qualified for the post by nearly twenty years of labor and had been especially concerned with aerological studies of the greatest importance to aviation...His method was that of careful correlation of data for the formulation of principles of practical application to air transport. He had no theories save those derived from factual observation and experience. When he was named by President Roosevelt to head the Weather Bureau staff in 1934, his appointment was recognized as a reward of merit..."

Vanillin Made from Lignin Lignin, one of America's biggest nuisance by-products in the processing of cellulose materials, has found a new use, says Science Service. A Wisconsin manufacturer, it is reported, is now offering vanillin (most widely used of all flavoring materials), made from the waste material. Of standard grade and said by its manufacturer to be indistinguishable from the real thing extracted from the vanilla bean, it has identical physical constants, aroma and flavor value as the older product. Synthetic vanillin has been produced for some time from a constituent of clove oil and from coal tar. Neither is a waste product and the necessary processes involve several steps. The new process, it is stated, produces vanillin simply and directly from live wood.

WPA Medicinal Herb Project A WPA research unit has been established near Concord, N. H., for growing medicinal herbs under the direction of Dr. Frederick W. Baker, a farmer-pharmacologist. He is teaching the farmers in the neighborhood not only how to grow medicinal herbs but also how to treat some of them to extract valuable oils, such as peppermint, spearmint and wintergreen. This project will not make this country independent of the world supply of medicinal herbs, but it will aid in making available a regular supply of a high-quality product. (New York Herald Tribune, September 18.)

Still No Free Seeds "This year the U. S. Department of Agriculture celebrates its fifteenth year of attempting to convince American farmers that it does not have seeds to give away," says the Utah Farmer (September 10). "'For fifteen years, the department...has been trying to convince 130,000,000 people that it has no free seeds or plants', a department pamphlet recently states. 'Years ago, prior to 1923, there was an annual appropriation for free seeds for congressional distribution from the department of agriculture. But in 1923, the government decided to discontinue the distribution of this great quantity of seed...Not only does the department have no free seed, it has no seed or plants for sale either', the sheet says."

New York Toll Road "Westchester County, suburban area immediately north of New York City, deviated on September 12 from the practice it has long followed in developing a \$65,000,000 parkway system when the county board of supervisors voted to finance improvements to the Cross County Parkway by collection of tolls," says Engineering News Record (September 15). "The supervisors decided to seek a \$1,800,000 loan from the Reconstruction Finance Corporation. Part of the money would be used to build a toll bridge between Yonkers and Mount Vernon, the loan to be retired from tolls. The loan to be sought would cover the cost of the new bridge and of a half-mile extension of the parkway to connect with the Sawmill River Parkway."

Kansas Wheat
Improvement

Dr. John H. Parker, plant breeder associated with the Kansas State College, the man who brought the Canadian plan for wheat improvement to the Southwest, has resigned as a full time member of the college faculty to accept an appointment as director of the Kansas Wheat Improvement Association. In the fall of 1936, with the aid of Geary county, Kansas, grain dealers and millers, Dr. Parker planted the first test plot in the United States to follow the Canadian plan. This first test plot was so successful in its purpose that 25 test plots in 25 Kansas counties were planted the following fall. The number this fall has been raised to 35 and the plan has been taken up by Nebraska and Oklahoma grain dealers and business men. Dr. Parker and his associates developed Tenmarq and Kawvale wheats, now widely grown throughout the Southwest. (Grain & Feed Journals, Sept. 14.)

Conservation

"It is encouraging to observe the continually growing appreciation of the importance of popular education in the development of a practical program of conservation of our timber resources," says an editorial in Southern Lumberman (September 15). "Not only is the Forest Service apparently giving more attention to this aspect of the matter; but state forestry organizations and private agencies are especially active along these lines. Only a few weeks ago the Seaboard Air Line Railway, cooperating with the Southern Kraft Corporation, sponsored a demonstration in South Carolina, aided by the forestry extension service of the state. Here farmers were instructed, by the visual method, as to the direct and continuing financial benefits to be derived by pursuing a policy of selective cutting and protection. In Mississippi, the proposed slate of forestry legislation having been temporarily delayed, the secretary of the state forestry association is making a tour of the state setting up councils in each county to promote sustained yield practices. In Arkansas the county agricultural agents are sponsoring a similar campaign in a large number of the counties where timber constitutes a leading crop. Other Southern states are engaging in like campaigns. When people first began to talk about forestry and conservation and the need for taking steps to insure a future supply of timber, the first suggestion made was usually some sort of restrictive legislation...Public sentiment is the strongest law of all, and self-interest is one of the most potent factors in molding public sentiment. The best way to accomplish a conservation of the timber is to show the timber owners--including the farmers--that they can make more money by handling their timber as a crop and making of it a permanent source of steady income. More and more agencies are now approaching the problem from this angle; and as this kind of work increases, so will the conservation movement gain in impetus."

Fur Animals

The Fur & Market Journal (September) contains a paper by Dr. J. E. Shillinger, Bureau of Biological Survey, on "Infections of Fur Animals".

DAILY DIGEST

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Vol. LXX, No. 57

Section 1

September 21, 1938

FOREIGN TRADE AGREEMENTS

The reciprocal trade agreements program was described last night by George S. Messersmith, Assistant Secretary of State, as "the most important single constructive program to bring back order to this chaotic world." Mr. Messersmith said the movement would "bring order into trade, free it from the severe restraints from which it has suffered and increase that flow of goods between countries which is essential for domestic and international health." The State Department has a twofold object in promoting such agreements, Messersmith said, namely "as a measure of peace and as a direct result to shipping." (Baltimore Sun.)

FARM EXPORTS INCREASE

The Chamber of Commerce of the United States reported yesterday that a big increase in exports of agricultural products was the "distinguishing feature" of American foreign trade during the first six months of this year. Exports of crude food-stuffs, it said, rose from \$23,378,000 in the first half of 1937 to \$152,090,000 this year, an increase of 550 percent. For the same period, total exports gained from \$1,536,000,000 to \$1,592,000,000, an increase of 3.6 percent, while imports fell by 41.8 percent from \$1,621,794,000 to \$943,315,000. (Associated Press.)

HILL HEADS FARM CREDIT

Forrest F. Hill, 37-year-old deputy governor of the Farm Credit Administration, yesterday was selected by President Roosevelt to succeed Governor W. I. Myers. Hill was born on a farm near Kingman, Kansas, and moved to Saskatchewan, Canada, at the age of 12. He was graduated from Saskatchewan and Cornell Universities. In an exchange of letters released by the White House, Myers praised Roosevelt's leadership and said the achievements of the Farm Credit Administration demonstrated the advantages and soundness of the agency's policies. (Washington Post.)

HOOF-AND- MOUTH SERUM

A Berlin wireless to the New York Times says that at the ninety-fifth meeting of the German Society of Natural Scientists and Physicians additional data on experiments with the new preventive serum against hoof-and-mouth disease were revealed by Professor Waldmann, the serum's codiscoverer. Since last April 45,000 experiments with cattle have been made in Silesia. Only 1.4 per 1,000 of those injected contracted the disease and then only in very mild form. Since April, production of the serum, which it is claimed will protect animals for at least three months, has increased from 200 to 1,200 liters weekly and an international agreement is being made to have it available wherever epidemics break out.

REA Power
Plants

"Tired of fruitless negotiations for what it calls 'reasonable' wholesale rates, the Rural Electrification Administration has decided to take the bull by the horns and expand its financing of generating facilities in certain areas," says Business Week (September 17). "One of its engineers is now in the Middle West to start the ball rolling with five or more power plants to serve rural co-ops in Ohio, Michigan, Minnesota and North Dakota. REA would much prefer to have its untried projects stick to distribution only, purchasing their power from existing sources in large blocks, but when it decides that the economic security of a project is threatened it will underwrite a generating station rather than submit to an 'excessive' rate. Curiously enough, in one of the problem states--Minnesota--many REA co-ops would buy power from municipal plants if they could get a low enough rate."

Vitamin A
Potency
of Feeds

G. S. Fraps, Texas Experiment Station, in Industrial and Engineering Chemistry (September 15) writes on "Evaluation of the Vitamin A Potency of Feeds". He says "the Vitamin A potency of feeds now appears to be derived entirely from carotene, with the exception of yellow corn, in which cryptoxanthin, closely related to carotene, is a source of vitamin A potency." "The importance of a high carotene content in alfalfa-leaf meals and some other feeds," he says, "has been commercially recognized. Feeds are being purchased on minimum specifications for carotene in localities as widely separated as New York and California, and analyses are being made to see that the carotene content comes up to specifications. The demand for high-carotene feeds will no doubt lead to improvement in the methods of curing and preserving such hays, so as to maintain a high carotene content. The vitamin A potency of feeds can therefore be evaluated by the estimation of carotene and cryptoxanthin. Methods for estimating carotene are available, and are being studied and improved. Their accuracy at the present time is probably as great or greater than the biological methods of rat assay."

Spineless
Okra

Okra without spines, which may eventually replace the older types, has been introduced by the Pee Dee Experiment Station in South Carolina, which calls it Clemson Spineless. It will be on the seed markets next spring. Spineless okra from which it was developed was first grown more than 50 years ago in the garden of Thomas Davis at Lancaster, South Carolina. Mrs. Dora D. Walker, long-time extension worker in the Palmetto State, procured seeds of the spineless okra and sent them to the experiment station. It proved to be a dwarf white-podded okra, largely free of annoying spines. After several years of testing and selecting, Clemson Spineless is the best of numerous types resulting from the original experimental plantings. It grows $3\frac{1}{2}$ to $4\frac{1}{2}$ feet tall and produces dark green pods. (Farm Journal, October.)

Nebraska Cream Law Cream buyers look for dirt under Nebraska's new cream buying law. When a farmer brings in a can of cream, the buyer takes a sample and forces it through a small round cotton pad. Any sediment in the cream is left on the pad. Each pad then goes on a large board displayed in the cream buying station. On it are the cotton pads and the names of the farmers who brought in the cream. Beneath on a card is the classification of the cream, which lists it as "Excellent," "Good," "Fair" and "Unfit for human consumption." Buyers say cream that at first graded "unlawful" has rapidly climbed to fair, good and excellent, with corresponding increases in the farmer's pay check for the better quality product. (Farm Journal, October.)

Strip Crop Record This year, more farmers than ever before have used strip cropping to protect their fields from soil erosion, according to a report from the Soil Conservation Service. A nation-wide survey by the service reveals that almost 1,000,000 acres of agricultural land were planted to alternate strips of open-tilled and close-growing crops. Strip cropping, developed as an erosion-control measure only a few years ago, now is practiced in almost every State. Strips of legumes or other close-growing crops--between strips of corn, cotton, tobacco and other open-tilled crops on sloping fields--slow down surface water with its load of soil in suspension. The denser vegetation filters out the soil particles and large quantities of water soak into the soil. Strip cropping is most effective with contour cultivation rows running around the hillside instead of straight up and down, which also retards erosion. Each horizontal furrow and harrow scratch is a miniature dam to retard runoff. (Richmond Times Dispatch, September 17.)

Wheat Progress "The ultimate proof of a wheat is the bread that can be made from it," says an editorial in the St. Paul Pioneer Press (September 13). "Accordingly it is not enough that a grain be rust-resisting, it must also pass a strict baking test. The Thatcher rust-resistant strain, produced a few years ago from experiments made at the Minnesota College of Agriculture, has recently passed tests in British bread-making procedure and is accepted as eligible for the highest Manitoba grades. A Winnipeg dispatch in The Northwestern Miller says it was considered essential to ascertain the opinions of overseas millers and bakers before finally accepting this variety for extensive production in Canada. The favorable report from the British laboratories is expected to weigh heavily in answering the question as to the advisability of retaining Thatcher wheat for seed in the prairie provinces. The all-round quality wheat is what farmer, miller and baker are constantly seeking. Even Thatcher is not the last word, for experimenters have several hybrids in the process of development which they think will excel it. The quest is endless and the result is continuing progress."

Montana Grass Restoration "In three northern Montana counties, Phillips, Blaine and Valley, an immense demonstration project in land adjustment is being worked out by the Department of Agriculture," says an editorial in the Great Falls Tribune (September 11). "In seeking better land use in that area the government purchased over a million acres of dry farms with unprofitable crop records. That land is being put back into use for grazing again, a use to which it was devoted before the homestead era....The relief program of the federal government in that section has included the removal of old fences and other relics of the homesteader, construction of water reservoirs and of dipping vats and corrals. Experimental plantings of crested wheat grass on abandoned fields were made in recent years. Despite a number of dry seasons which handicapped such plantings, the experiments worked out well, and this fall 21,000 acres of land in the three counties are to be seeded to crested wheat grass in the new land-use program. Favorable moisture conditions exist this fall for such seeding. Tests at the experiment station in northern Montana have shown fall seeding to be the most successful practice, and a good moisture reserve in the ground at the end of the summer justifies the hope of a successful catch of the grass next year."

New Cotton Resists Wilt "A new variety of cotton, Delfos 2323-965-425, very resistant to the fusarium wilt disease which prevails in the delta district of Louisiana and Mississippi, will be available for planting approximately 150 acres in 1939," says George H. Dacy in Country Gentleman (October). "The available seed supply will be increased as rapidly as possible for release to growers in the wilt-infested areas. The new variety springs from a single plant found growing vigorously in 1934 in a wilt-infested plot at the Northeast Experimental Station in Louisiana. In a test of sixteen varieties of cotton in 1936 this selection was outstanding in wilt resistance while it also yielded satisfactorily. Last year in another test of ten new-strain and hybrid cottons for wilt resistance, it remained practically free of wilt throughout the growing season, produced a splendid stand of one-and-three-sixteenths-inch cotton, and yielded as much as 1100 pounds of seed cotton per acre on the bench and bluff lands at Baton Rouge. Its plants are fairly representative of the Delfos 6102 type in growth habits, boll size, rapidity of fruiting and fiber properties. The new wilt-resistant cotton has been developed by D. C. Neal, of the United States Department of Agriculture, in collaboration with C. B. Haddon, superintendent of the Louisiana Station."

Lead Residue on Fruit Following receipt from the Treasury Department of a statement that investigations by the Public Health Service indicate that the health of consumers will not be endangered by the change, the Secretary of Agriculture has issued notice that the quantity of lead residue permitted on fruits shipped interstate will be raised to 0.025 grain per pound of fruit. The lead tolerance previously enforced under the Food and Drugs Act was 0.018 grain per pound. The tolerances for arsenic and fluorine residue remain unchanged at 0.01 grain per pound.

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Section 1

September 22, 1938

TECHNOLOGY AND EMPLOYMENT

Dr. Karl T. Compton, president of the Massachusetts Institute of Technology, yesterday at the International Management Congress, attacked the theory that technological advances caused permanent unemployment. The application of scientific methods to improve quality and decrease production costs, he said, was the way to economic recovery. Particularly he stressed the necessity for developing new products, and he declared "the basic necessity is to encourage science, encourage capital and remove the artificial restrictions of regulations." Even in agriculture, Dr. Compton said, technology not only had created new markets by the development of transportation and storage facilities, but has met the threats of food shortage by technical improvement in soils, seed and farming methods. (New York Times.)

UNITED STATES POPULATION

The Census Bureau has estimated the population of the United States on last January 1 at 129,818,000, it was said yesterday by Secretary Roper. This represents an increase of 941,000, or seven-tenths of one percent, from the previous year, Mr. Roper said, and was based on the excess of reported births over deaths and of immigration over emigration. A table presented by the Secretary showed that the annual population increase has stood steadily around seven-tenths of one percent since 1932, although in 1931 the increase was nearly a full one percent. (Press.)

DISTRIBUTION OF SURPLUSES

A San Francisco report by the Associated Press says a Federal Circuit Court of Appeals opinion, handed down yesterday and applying specifically to the Pacific Coast walnut crop, upheld Secretary Wallace's policy of giving to charitable institutions surplus products which could not be sold without affecting the market of the controlled crops. This policy was designed to aid the underprivileged and end destruction of crops. The court upheld that the act violated no constitutional rights and pointed out that the order was designed to create parity in prices by diminishing surplus supplies.

TRADE STUDY

A fact-finding investigation of some 2,300 trade associations was launched yesterday by the Commerce Department as one phase of the national economic committee's broad monopoly study. Assistant Secretary of Commerce Patterson said the trade inquiry is not aimed at specific abuses but at "a more intelligent understanding of the position of trade associations in the economic structure." (Washington Post.)

B.A.Eng.
Changes

J. E. Miller, for more than two years Acting Chief of the Plans and Service Division of the Bureau of Agricultural Engineering, has resigned on account of ill health. He is succeeded by Joseph A. Scott, formerly with the U. S. Housing Authority, who has already taken up his new work. The Plans and Service Division prepares architectural and engineering plans for buildings and equipment required by the various bureaus and offices of the Department outside of Washington. All correspondence should now be addressed to Mr. Scott.

Portable
Irrigation

An Associated Press report in the Baltimore Sun (September 13) says that portable irrigation systems are being used by north central Wisconsin potato growers to provide moisture at precisely the right time. They also serve as insurance against crop failure in years of severe drought. The portable units are made up of sixteen or twenty foot sections of four or six-inch diameter electrically welded lightweight steel pipe. Rainheads, or revolving sprayers, are built into the pipe forty to sixty feet apart. A special type of rubber washer in the ends of the pipe permits flexibility at the couplings, but seals tightly under pressure. Most of the units in operation here have sufficient pipe and rainheads to irrigate approximately four acres at one time. Some have enough pipe to lay lines on four acres while water is being sprayed on an adjacent four acres. By this method no time is lost in moving pipe to new locations. Practically all of the units are engineered to provide an inch of water over an area in half an hour. Lakes, streams and reservoirs, which are virtually huge wells, are sources of water for the potato growers. Small automobile gasoline engines are used by some to provide pump power, while others near electric power have electric motors. An eighty-acre field of potatoes on the Guenther farm, near Antigo, was irrigated four times last summer. The yield was 327 bushels of premium potatoes to the acre which sold for 50 cents a bushel above the market. Another sixty-acre field which was not irrigated yielded 111 bushels of ordinary quality potatoes.

Spare the
Roosters

A shift away from the chicken yard's polygamous society, in which hens greatly outnumber roosters, was advocated as a means of increasing the nation's egg supply, by Dr. H. D. Goodale, internationally recognized geneticist of Mount Hope Farm, at Williamstown, Mass., at the annual New Jersey Poultry Breeders' Institute. Too many potentially valuable breeding males are sacrificed on the altar of expediency, Dr. Goodale declared. He deplored the tendency, common on most poultry farms, toward ruthless culling of male birds before their ability as breeders is proved by the high egg production of their daughters. The holding ^{and} use of more proved sires, he pointed out, would increase egg production. Dr. Goodale urged poultrymen to increase the number of male birds used in their breeding programs, to substitute more small breeding flocks for the larger ones found on most chicken farms. "Females are more numerous," he said, "but the male is half the flock." (Science Service.)

Improved Grass Crops "Two new grasses recently introduced by Oregon Experiment Station present advantages, particularly from a pasture standpoint, over kinds commonly known to farmers," says Walter J. Hunt in Country Gentleman (October). "These are Superior Reed Canary grass and Tall Fescue No. FC29366. Both were developed with the cooperation of the United States Department of Agriculture and their seed now is in commercial production. Superior Reed Canary grass is adapted to the same ~~wet~~-land conditions as the ordinary Reed Canary grass, but in addition it makes highly satisfactory growth on land too dry for the ordinary type. Under continued observation, Superior Reed Canary grass has proved taller, slightly later in maturity, leafier, larger seeded and less inclined to seed shattering than the common variety. While the Tall Fescue closely resembles Meadow Fescue, it has several distinct advantages, especially for certain sections where Meadow Fescue is a short-lived grass. This new one is a long-lived perennial that starts growth early in the spring and continues late into the fall. In fact, in mild climates, it may prolong its growth through winter. It is one of few grasses that will produce green growth during late summer's dry weather, and although it produces rather coarse forage, it is very palatable. Tall Fescue is chiefly a pasture grass, but can be used for hay."

Better Cotton for Foreign Spinners The Bureau of Agricultural Economics is cooperating in a program of the AAA designed to improve marketing practices and to demonstrate to foreign spinners the high quality of American cotton produced in one-variety communities. Other agencies cooperating include the Bureau of Agricultural Engineering, Bureau of Plant Industry, Office of Experiment Stations, Extension Service, and the Farm Credit Administration. The plan is to test the feasibility of assembling, for delivery to spinners, lots of improved cotton produced under approximately uniform growth conditions in organized one-variety communities. This cotton will be ginned under proper conditions, packed uniformly with respect to quality, covered with cotton bagging, and so handled as to insure the placing of a uniformly good product in the hands of the spinners. The Division of Cotton Marketing will provide a market news service for the growers and see that the lots of cotton are kept intact as they pass through the channels of trade in this country; and the Foreign Service Division will follow the lots through in Europe until they are delivered to foreign spinners. The cotton will be purchased from growers by marketing agencies on a net weight basis and will be sold abroad on the same basis. The cotton will be sampled at the gin and information as to variety, grade, staple, and point of production will be available to foreign purchasers. Present indications are that between 10,000 and 12,000 bales will be so handled. To insure that selected cotton will be available for this program, the cooperating marketing agencies will pay 10 points, or 50 cents per bale, above the local market value for cotton of corresponding grade and staple. To offset this higher price and the additional expenses involved in the special handling, the AAA will make payments of \$3 per bale to the co-operating marketing agencies. (B.A.E. News, September 15.)

Soybean
Prospects

An editorial in the Des Moines Register (September 17) says: "We should be the last to deny that the soybean has a great future in this country. It has taken a long leap forward in Illinois and Iowa in the past three years...But here are two little notes of caution, lest enthusiasts push the new product too fast. Soybean oil competes with lard, because it is one of the vegetable oils used in the manufacture of vegetable shortenings and compounds. To some degree, its expansion will be at the expense of our major industry, hog-raising. Secondly, the boom in soybeans in the past three years is due in part to unusually short supplies of lard and of cottonseed oil, a fact which raised the price of soybean oil above what it would otherwise have been. In the recent government bulletin, 'Soybeans in the United States; Recent Trends and Present Economic Status,' Ernest W. Grove of the Bureau of Agricultural Economics says 'no conclusive answer can be given now' to the question whether soybeans will maintain the advances made under these conditions. Much depends upon consumer attitudes and upon research. Soybean meal compares favorably with other protein concentrates, but soybean oil is still at a disadvantage compared with more commonly used oil. 'Some degree of caution (says Grove) is desirable in considering an increased production of soybeans for crushing purposes. Further increase should occur only in response to sustained or increasing demand.'"

Herty Pulp
Research

Trustees of the Herty Foundation have announced that careful planning by Dr. Charles H. Herty prior to his death last month will result in his experiments in pulp paper manufacturing being carried on. The Savannah scientist, whose research brought millions of dollars worth of paper mills to the South, had evolved a five-year plan for his experimental laboratory. Sulphate pulping is the first item, with consideration being given both to pines and hardwoods. Then comes sulphite pulping, mechanical pulping, bleaching and pulp purification, stock preparation and machine operation, rayon and miscellaneous. Other matters for future study include determination of optimum coarseness of the grinding wheel in pine pulp for newspaper purposes, minimum power consumption, and heat and chemical treatments. Removal of yellow coloring matter in sulphate pulps from pine and certain hardwoods also will be undertaken. Work of directing the laboratory work is expected to fall upon Dr. Charles H. Carpenter, chief chemist and assistant to the late Georgia scientist. (Columbia, S.C. State, September 14.)

Railroad
Problems

President Roosevelt has announced that he has asked three railroad presidents and three railroad labor union heads to act as an informal committee of six to discuss the general problems of a national transportation system and recommend legislation. Mr. Roosevelt recalled that he had sent a message to Congress on the railroad problem this year and expressed the hope that there would be legislation at the next session of Congress. He said he hoped the new informal committee of six would bring in a sufficiently broad plan to make it worth while for Congress and the country to study it and, if it seems acceptable, to act upon it. He expects a report from the committee within a month or six weeks. (Wall Street Journal, September 21.)

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Section 1

September 23, 1938

FARM CASH INCOME

Cash income from marketings of farm production in August were \$614,000,000, the Department of Agriculture said yesterday. For the first eight months of this year, farm income was estimated at \$4,307,000,000 or 14 percent less than the \$5,004,000,000 reported for the same months last year. The department announced that government payments to farmers in August totaled \$17,000,000, compared with \$35,000,000 in July and \$5,000,000 in August last year. Total cash income, including government payments, was estimated at \$631,000,000 for August, compared with \$644,000,000 in July and \$771,000,000 in August 1937. For the first eight months of this year, the cash income, including government payments, totaled \$4,616,000,000, as against the \$5,350,000,000 estimated for the corresponding period last year. (Press.)

SPRING WHEAT MOVEMENT

With the spring wheat movement in the Northwest virtually completed, American railroads have again established new records in handling this year's crop, according to figures just compiled by the Car Service Division of the Association of American Railroads. During August, 41,079,550 bushels of spring wheat were moved into Minneapolis by railroads serving that market. This was the largest movement for any single month in fourteen years and the largest for any August on record. At Duluth and Superior, August receipts this year were 29,400,672 bushels and for the first two weeks of September they were 13,769,584 bushels. The movement for the two weeks of this month was the heaviest for the two markets since 1923. (Baltimore Sun.)

AUSTRALIAN TRADE POLICY

In a review of Australia's trade policy issued yesterday, the National Foreign Trade Council, Inc., expressed the opinion that the Ottawa agreements have proved too rigid and that Australia has found it necessary to join with Canada in obtaining greater flexibility in her trade relations with non-empire countries. What Australia and other empire countries now aim at, according to the council, "is a long-term constructive overhaul of both their inter-imperial and foreign trade relations." Failure of Australian Ministers to effect a revision of the present agreement with Great Britain was attributed by the council to the delay in completing the Anglo-American trade negotiations, the terms of which must determine Australia's future share of United Kingdom imports and the advantages to be derived from trade negotiations with the United States. (Press.)

Dry Chlorate R. I. Throckmorton, Kansas State College, in Country
Kills Bindweed Gentleman (October) reports that "experiments conducted
by the Kansas Experiment Station and the United States
Department of Agriculture have demonstrated that sodium chlorate may be
used effectively in dry form for the control of bindweed and that when
used in this form many of the objections (to the spray form) are eliminated.
The dry sodium chlorate should be applied at the rate of three or four
pounds per square rod or approximately 500 to 600 pounds per acre. The
application should be made between September first and the first killing
frost. The chemical must be distributed uniformly because it will not
spread after it has entered the soil. Application may be made by hand or
by the use of a fertilizer distributor. The use of a fertilizer drill or
a grain drill with a fertilizer attachment is not recommended because the
chemical will cause the equipment to rust. Dry sodium chlorate spread
on the surface of a cultivated field should be incorporated with the soil
with a disk or harrow to prevent loss by wind or water. Cultivation is
usually not necessary on uncultivated land when there is some vegetation
to prevent the material being blown or washed away...The reduced fire
hazard and the relative convenience of making a single heavy application
without the use of spray equipment will result in a wide use of the dry
application method."

Flax for The September 15 issue of Farm and Ranch says editorially:
Gulf Coast "Farm and Ranch several months ago described the work of
the Texas Experiment Station in introducing flax as a new
crop for the Gulf Coast counties...This year a number of farmers tried
out the new crop with satisfactory results and the first shipment was made
in July to Fredonia, Kansas, the nearest market. This shipment consisted
of 701 bags and brought \$1.80 per bushel. Yields at various experimental
plots varied considerably, but even the smallest was larger than the
national average...The research work of the Texas Experiment Station has
been an outstanding feature in the development of the agricultural re-
sources of Texas. It is doubtful that anyone else would have thought
that flax would succeed in Texas by planting it in the fall instead of in
the spring. It was tried and results indicate that we have discovered a
new, non-competitive crop grown in the winter and harvested early enough
to permit the use of the land for other purposes during summer months.
Sometimes it seems to the layman that research workers go the long way
around to come to conclusions, but if one could list the accomplishments
of the Texas Station during the past several years he would be satisfied
that their methods, though sometimes shrouded in mystery, bring the de-
sired results."

Proved Dairy Dairymen looking for promising sires to head their
Sires List herds can find valuable information in the new list of
sires proved in dairy herd-improvement association herds,
says the Bureau of Dairy Industry. The list includes the names of 992
sires that have been used in herd-improvement association herds where
production records are kept on all cows year after year. Following each
sire's name is a summary of the

Proved Dairy Sires List (continued)

production records made by at least five of his unselected daughters, or by as many more as have been tested. These records, in comparison with the records of the daughters' dams, give an indication of the sire's breeding ability. While the value of the list is largely in the information it affords the owners of these herd sires, or of herds in which these sires have been used, lessons may be drawn from the performance of these 992 sires that are of great importance to dairymen, according to the bureau. (Southern Dairy Products Journal, September.)

Device Shows "Dr. J. I. Hardy, Bureau of Animal Industry, has received a patent on a device to measure quickly the length and the crimp in a single wool fiber, as well as length of other fibers--animal, vegetable or artificial," says Montana Farmer (September 15). "Length of fibers--and in the case of wool, crimp as well--has much to do with their value. Longer fibers are more valuable for textiles. Also, in improving the wool breeds of sheep, breeders have long needed practical and reliable methods of measuring the fibers in a fleece...Dr. Hardy's new machine is the latest in a series of mechanical aids for wool laboratories...It will measure wool fibers as short as three-eighths of an inch, accurate to about one hundredth of an inch. One of his earlier patents simplified measurement of the diameter of wool and other fibers. Another made easier the slicing away of thin cross sections for study under the microscope. The government has free use of all Dr. Hardy's patents."

Certified Missouri Ruralist (September 17) says in an editorial:
Cotton Seed "...Last year in Pemiscot, Mississippi, New Madrid, Scott, Dunklin and Ripley counties 64,340 acres were planted to certified and registered cotton seed. The increased yield amounted to 25 percent over that from gin-run seed and lint from the certified varieties brought an average of 1 cent a pound over the gin-run plantings. A cash return to the planters of more than a million dollars over what they otherwise would have received was estimated. Much of the credit for this work is due M. D. Amburgey who has been county agent in Pemiscot, largest cotton producing county, for almost 20 years... A much larger acreage was planted with certified seed for the 1938 crop. In 5 years Missouri cotton growers believe certified seed use will add as many million dollars more to cotton returns through certified seed use..."

Grazing Appointment of fifty-five field agents of the Division
Districts of Grazing of the Interior Department as deputy fire-wardens in ten states of the West and Southwest has resulted in the establishment of a greatly augmented force for the prevention and suppression of forest and grass fires and the advancement of the national program for conservation of wildlife and other natural resources on the public domain, Secretary of the Interior ^{Lickes} recently was advised by Director F. R. Carpenter. The new arrangement makes each of the fifty-five federal grazing districts a separate fire-control area in which the man-power and equipment of the Interior Department will be used in cooperation with other federal and state fire-fighting and conservation activities. (Press.)

Game Laws The Biological Survey has found it necessary to dis-
Publication continue publication of Farmers' Bulletins on the game
 laws of the various states, the Canadian provinces,
Newfoundland, and Mexico. The reason is that in a number of states the
hunting seasons, bag limits, etc., are not announced until shortly be-
fore the opening of the seasons--too late to enable the bureau to issue
a bulletin. All states and provinces issue their game laws and will
supply them to interested persons on request to the state or provincial
game departments. Federal regulations for the hunting of migratory game
birds will be published in pamphlet and poster form as usual, and will
be available well in advance of the opening of the seasons on those
species. (Outdoorsman, October.)

Flood Land Lands subject to recurrent floods should be converted
Improvement to forest and similar uses rather than be maintained as
 farmlands at an excessive cost in flood prevention measures,
Dr. Donald F. Jones, Connecticut Experiment Station geneticist, declared
recently. "Much of the low land now subjected to frequent flooding can
be planted to trees," he stated. "Instead of spending large sums to pre-
vent floods and add farm lands not now needed, why not use these flood
waters to increase production of tree crops that are needed? Land sub-
ject to overflow should be zoned, restricted for building and eventually
incorporated into managed forests...There is no longer enough advantage
from river transportation to justify the location of farm houses, villages
and even cities in mud holes." (Science Service.)

Aerial Camera To insure that photographs taken from the air will
Standards be of a quality and character that will be satisfactory,
 not only for present needs, but also for other purposes
that may develop, the American Society of Photogrammetry has appointed a
Committee on Precision Cameras to formulate camera specifications. Govern-
ment agencies interested in crop control, soil conservation, large-scale
irrigation projects, and installation of hydro-electric plants, particular-
ly, have found it helpful to use such photographs and their needs have
greatly accelerated the photographing of large areas of the United States
from the air. An article presenting the results of an investigation in
connection with the work of this committee will soon be published in
Photogrammetric Engineering. (Industrial Standardization, September.)

Green Feed There is now available for dairymen a plant-growing
Machine machine for the winter production of living green feed,
 grown continuously from seed without benefit of soil. The
small-farm unit resembles a large electric refrigerator. Oats, or some
other grain, soaked in water for 24 hours, are placed in a tray, which
is slipped into the electrically heated growing cabinet. A new tray is
added each day for six days. On the sixth day, four-inch growths are
ready for harvest from the first tray, which has turned thirty-three pounds
of oats into 150 pounds of green feed, the daily requirement of 20 cows.
(Country Home Magazine, October.)

DAILY DIGEST

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Section 1

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WORLD WHEAT SUPPLY, EXPORT The Bureau of Agricultural Economics has estimated the 1938-39 world wheat supply at 4,940,000,000 bushels. Probable disappearance of wheat during the current marketing year was placed at 3,795,000,000 bushels. This would leave a carryover of about 1,145,000,000 bushels next July, which compares with the record carryover of 1,193,000,000 bushels in 1934. The world supply, excluding Soviet Russia and China, was reported the second largest on record. It consists of 4,345,000,000 bushels estimated produced this year, plus world carryover stocks July 1 estimated at 595,000,000 bushels. The total supply was reported to be 585,000,000 bushels more than in the year just closed, when supplies were the second smallest since 1927. (Washington Post.)

The Agricultural Adjustment Administration has announced that 2,841,770 bushels of wheat had been exported under the administration's new export subsidy program. The exports covered the period up to September 15. The AAA also said the Surplus Commodities Corporation had purchased 8,743,591 bushels of wheat up to that date. (Associated Press.)

GOVERNMENT AND INDUSTRY Cooperation between industry and government is the key to better times, Prentiss L. Coonley, Washington economist, told the American Trade Association executives at Pittsburgh. "...Commencing early this year," he said, "there have been a series of meetings in Washington during the succeeding months between advisers to the administration on policy and on economics on the one hand and a group of industrial leaders on the others. At first the meetings were small and informal, but they grew as their usefulness and as the hope there was in them grew...They are convincing evidence that this new relationship of cooperation is sought equally by government and by industry..." (New York Times.)

ECUADOR TRADE PACT President Roosevelt has proclaimed the trade agreement between this country and Ecuador, signed at Quito August 6 and effective October 23. The Ecuadorean agreement is the eighteenth under the new trade agreement program and the tenth with a Latin-American country. Under the agreement, tariff concessions were made on certain specified Ecuadorean products. (Press.)

Profitable Dairy Sires Hoard's Dairyman (September 25) in an editorial on the Bureau of Dairy Industry proved sire list, says in part: "Too much attention cannot be paid by breeders in selecting a bull to head a herd, whether it be grade or registered. It is essential that careful attention be paid to records and especially the way they are made, for it is possible through records to convey faulty and imperfect information. The proved sire list contains reports on 992 sires. Of this number 476 increased production and 516 decreased production. These figures clearly indicate the necessity of proving bulls before they are extensively used if we expect to make improvement in the production of the dairy cow. It was found that one sire where the dams produced from 200 to 225 pounds fat, decreased the production, indicating that even though a bull may be rather carefully selected, he may not have the inheritance to transmit even reasonably good production. With cows averaging from 450 to 474 pounds fat, only seven of the bulls increased production and 33 decreased production. This emphasizes also that when a herd gets above 400 pounds fat, extra care must be taken in the selection of a bull. If this is not done, chances are three to one the daughters will not produce as much as their dams."

1937 Highway User Taxes Thirteen and one-half cents out of every dollar of State taxes paid by highway users in 1937 was assigned to uses other than highways, according to statistics collected by the Bureau of Public Roads. This is two and one-half cents less than the non-highway use in 1936. Highway user revenues distributed by the States amounted to \$1,195,132,000. These revenues included registration and license fees amounting to \$410,401,000, gasoline taxes of \$768,010,000, and special taxes on motor carriers of \$16,721,000. Highway user taxes have been justified on the grounds that they are needed for improvement of roads over which the vehicles must travel. The Bureau reports that there is no prospect that sufficient funds to correct all dangerous highway conditions can be provided in the immediate future and urges that all highway user revenues be devoted to highways.

Feeder Stock in Southwest "A million head of feeder calves and hundreds of thousands of lambs are annually shipped from Texas to the corn belt," says an editorial in Farm and Ranch (September 15). "Oklahoma and New Mexico contribute many more thousands of head to this northward movement and now Arkansas and Louisiana are getting into the livestock business...While this is going on, Southwestern farmers are producing millions of tons of feedstuffs in the form of grain sorghums, corn, oats, sweet sorghums and hays...Why should we send all of our cattle and lambs to the corn belt for finishing when it has been demonstrated that we can do as good job at home at smaller cost? It is true that we have not developed our markets sufficiently to absorb all of our cattle and lambs, and we expect to continue to meet the demand of corn belt feeders for well-bred livestock, but we should

Feeder Stock in Southwest (continued)

lose no time in providing our own people with high quality meat, and in developing markets in the eastern industrial area. The feeding of live-stock for the market can not be developed to perfection over night. It is going to take time, but the Southwest is fortunate in having a large number of men who know how to feed and many thousands of 4-H club boys and vocational students who are rapidly learning."

Mich. Bean Grading New bean grading regulations became effective in Michigan September 20, in Michigan's bid for recognition in the nation's bean market. John B. Strange, agricultural commissioner, said the grades would be mandatory for all beans save those sold by the producer directly to the consumer. The grades will be known as "choice hand picked," "prime hand picked," "choice recleaned" and "fancy screened." Strange asserted Michigan has lost prestige among the bean producing states because of carelessness and lack of uniformity in grading. (Grand Rapids Herald, September 15.)

Hormone Dust for Plants Science News Letter (September 24) reports that as a result of experiments by Dr. N. H. Grace, Canadian National Research Council, hormone dust is being used this year in large field trials in various parts of Canada. "Instead of putting the hormone chemicals in water," it says, "they are distributed in fine dust. It is easier to roll the seeds in the dust and stick the cuttings in fine powder. The dust most often used is talc...Wheat on the western plains may be able to get its roots in the soil faster and more securely if the seed wheat is dusted with hormones...The hormone dusting adds practically nothing to the cost of the seeding operation. Farmers already dust their seed with poison to kill fungus, and it is only necessary to add the chemical hormone to the dust previously used. Demand is reducing the cost of these synthetic chemicals, and naphthyl-acetic acid costs about \$10 per pound. Seed for several thousand acres can be treated with a pound. Thus the treatment costs only about half cent an acre...Dr. Grace has found that the dust application of the plant hormones spreads their effects over a longer period than is the case when they are applied in a water solution...For propagating plants by cuttings and for prompt rooting of seedlings, the plant hormone dust is also being used..."

S.C.Cotton Bagging Director W. W. Watkins of the Clemson College Extension Service recently announced cotton mills representing 7,600,000 spindles, or almost 28 percent of the total in the United States, had agreed to make proper allowance for lighter weight of tare in purchasing cotton wrapped in cotton. "We cannot hope to do more this year than make a start in the use of cotton bagging in South Carolina," Director Watkins said. "However, if the program proves practicable, South Carolina farmers should welcome this self-help opportunity to cover their cotton bales with cotton bagging." (New York Journal of Commerce, September 22.)

Allergy
to Foods

The Northwestern Miller (September 21) contains an address, "When What You Eat Doesn't Agree With You," by Dr. Walter C. Alvarez, of the Mayo Clinic. He says in the concluding paragraph: "A large field for research which now awaits cultivation is that of so treating foods that they will lose much or all of their harmfulness to sensitive men and women. That something might be done along this line has been suggested to me by intelligent persons who said that they found that, so far as they were concerned, the paring of certain fruits or the soaking of them in water or vinegar or the cooking of them in a certain way would render them harmless. All of us know that apples which so commonly cause distress when raw are usually harmless when cooked, and we know that cabbage which is so commonly hurtful when cooked is usually harmless when raw. A few persons sensitive to milk can drink some of this fluid if it is first fermented or evaporated or dried, and some wheat-sensitive persons can eat thin toast which is largely dextrinized. Doubtless some day someone will write a most useful monograph on this important but as yet unexplored subject."

Lights for
Poultry

"...Recent experiments at the Alabama Polytechnic Institute show that all-night lighting in the laying pens of hens has done a great deal to increase the production," says A. O. Braeger, in American Poultry Journal (October). "In working with force molting hens and all-night lighting, these investigators found that one group of hens that had been force molted and under all-night lights averaged 90 eggs in 8 months, while the other group, which had not received light and were allowed to molt normally, only averaged 66 eggs in the same period. During this time, the latter group had a mortality of 18.3% while the mortality was 15% in the group that was force molted and lighted. Figures showed that the returns over feed cost during the 8 months of the test were 72 cents per bird for the group which molted normally, but with those birds which were force molted and lighted, it ran \$1.25 over the cost of feed. These investigators expressed the opinion that poultry raisers who do not have the facilities, but are trying to produce young pullets, may be able to maintain their winter egg supply by using hens properly molted and in good condition placed under all-night lights...The all-night light system consists in keeping dim lights on all night long. A 15 watt bulb is usually placed directly over a feed hopper. Regardless of which system is used, all lights should be discontinued by April first..."

Streamlined
Wheelbarrow

Even the wheelbarrow is being streamlined. The later models have a wheel with a jolt-absorbing pneumatic tire and a ball-bearing hub which saves a lot of push energy. One new model is all steel and has a seamless top tray mounted for level wheeling. However, for some jobs you can't beat the standard wood-frame barrow, modernized with a rubber-tired wheel. The box is quickly unloaded by jerking out the sideboards. Then the flat base is ready to carry anything from a mountain of egg crates to long posts. (Country Home, October.)